A STUDY OF SIXTY FAILING STUDENTS IN THE
LOWTHIER JUNIOR HIGH SCHOOL DURING
1928-1929, EMPORTIA KANSAS.

by

A. KIRK RAINY

B.S. Kansas State Teachers College, Emporia 1924

Submitted to the Department of Education and the Faculty of the Graduate School of the University of Kansas in partial fulfillment of the requirements for the degree of Master of Science in Education.

Approved by:

Instructor in charge.

Head or Chairman of Dept.

June, 1930
ACKNOWLEDGMENTS

The writer wishes to express his sincere appreciation to J. W. Twente, Professor of Education, University of Kansas, whose guidance and assistance has made this study possible.

Great appreciation is due Evelyn Lois Remy, my wife, for her assistance and encouragement throughout the writing of this thesis.

It would be ungrateful not to also acknowledge the work done by Ruth Thomas in tabulating the data, and the assistance of the faculty in the Lowther Junior High School who so willingly cooperated in furnishing data regarding failing pupils.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter/Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER I</td>
<td></td>
</tr>
<tr>
<td>PLAN OF STUDY</td>
<td>5</td>
</tr>
<tr>
<td>CHAPTER II</td>
<td></td>
</tr>
<tr>
<td>PRESENTATION AND ANALYSIS OF DATA</td>
<td>9</td>
</tr>
<tr>
<td>CHAPTER III</td>
<td></td>
</tr>
<tr>
<td>SUMMARY AND CONCLUSIONS</td>
<td>40</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>44</td>
</tr>
<tr>
<td>APPENDIX</td>
<td></td>
</tr>
<tr>
<td>A. Check sheet used by teachers</td>
<td>46</td>
</tr>
<tr>
<td>B. Check sheet used by pupils</td>
<td>47</td>
</tr>
<tr>
<td>C. Check sheet used by school nurse</td>
<td>43</td>
</tr>
<tr>
<td>D. Check sheet used by graduate students</td>
<td>49</td>
</tr>
<tr>
<td>E. Terman Group Test of Mental Ability</td>
<td>50</td>
</tr>
<tr>
<td>F. Stanford Achievement Test</td>
<td>62</td>
</tr>
<tr>
<td>G. Otis Group Intelligence Scale</td>
<td>82</td>
</tr>
</tbody>
</table>
INDEX OF TABLES

Table page

I. Distribution of students according to Mental and Chronological Age (Terman) ............. 10
II. Educational Ages by Grades (Stanford) .................. 11
III. Distribution of Students according Educational Age and Chronological Age (Stanford) 12
IV. Showing Reading Age and Grades (Stanford) .......... 13
V. Distribution of I Q by Grades (Terman) ............ 14
VI. Distribution of Educational Quotient by Grades (Stanford) ........... 16
VII. Distribution of All Grades (Terman) ............... 18
VIII. Distribution of Final Grades (Terman) ............. 20
IX. Percent of Failing Marks by Grades and by Subjects ........................................ 22
X. Percent of Failing Final Marks by Grades and by Subjects .................................... 24
XI. Number, Sex, and School Marks by Grades ............. 25
XII. Ranking of twenty Causes of Failure by Forty Graduate Students ..................... 27
XIII. Summary of Ranking the Causes of Failure by Forty Graduate Students ................ 29
XIV. Summary of Results of Checking Causes of Failure by Teachers ........................... 31
XV. Total Number of times that Failing Pupils checked Causes of Failure .................... 33
INDEX OF TABLES
(continued)

Table                                          page

XVI  Summary of Report of School Nurse.......... 35

XVII Ranking of Twenty Causes of Junior High
School Failure by Graduate Students compared
with ranking of these same causes by the
Teachers of these Failing Students................ 37

XVIII Comparison of Rankings of Graduate Students,
Teachers, and Pupils............................... 39
INTRODUCTION

The purpose of this study is to determine some of the causes contributing to student failures in the Lowther Junior High School, Emporia, Kansas. About ninety different students have been failing in one or more subjects at some time during each semester. Not all of these students fail at the close of the semester. Many improve sufficiently to receive credit.

The total enrollment of this school unit is about six hundred. For sixteen per cent of the total enrollment to be doing failing work at some time during the semester seemed to the writer to be worthy of consideration.

Three of the peculiar functions of the junior high school are (a) retention of pupils, (b) economy of time, and (c) recognition of individual differences. If these functions are to be fulfilled the teachers must not only know the students, but also the conditions surrounding the students.

1. Koos...The Junior High School.
This junior high school is organized on the six-three-three plan. It has a faculty composed of thirty teachers, a school nurse, a dean of girls, and a principal. It is housed in a modern building, erected and equipped especially for junior high school purposes. No inexperienced teachers are employed. All but five teachers hold college degrees. These five have completed more than sixty college hours. Teachers are teaching in the field of their major or minor college training. The school nurse is a graduate nurse.

Pupils and parents are advised of the grade of work done at the close of each six weeks period. This is done by means of grade cards given to the pupils to be signed by the parents and returned to the teachers. Promotions are made twice each year.

Solid subjects are the same for all students. During the seventh and eighth years students take one semester of each of the following subjects: art, music, penmanship—spelling, manual training for boys, and domestic science and art for girls. Ninth grade students enroll for the College Preparatory, General, or Commercial courses. Students enrolled for the College Preparatory course elect Latin or Spanish; General course students elect Spanish, Latin, Domestic Science or Art, Printing,

Every student unless physically disabled is required to take physical training four days and hygiene one day each week. The school day begins at 8:10 A.M. and closes at 3:20 P.M. The day is divided into six periods of fifty-five minutes each with five minute intermissions. The period is divided into thirty minutes recitation, and twenty-five minutes study. Seventh and eighth grade students carry five subjects in addition to Physical Training. Ninth grade students carry four subjects in addition to Physical Training and have one period for study.

Seventh grade students are received from the various elementary schools of Emporia. About twenty-four percent of the ninth grade students come from rural schools and four percent from the parochial school.

An attempt is made at homogeneous grouping. Each grade is divided into three or more groups. The grouping is done on the basis of the I.Q. and the past scholastic record of the individual. Teachers are informed regarding the type of classes assigned
them. Pupils are not so informed. Teachers have access to the cumulative record of each individual child.

The writer of this thesis is a teacher of General Science in this school. He is personally acquainted with the cases studied. Both teachers and pupils have shown much interest in this study. Pupils have not only shown interest in finding the causes contributing to their failure, but in learning what they might do to improve their standing.
CHAPTER I

PLAN OF STUDY.

During the summer of 1928 the writer surveyed much of the literature dealing with school failures. The twenty causes of failure listed most frequently in the literature were assembled on a "checking sheet". Forty graduate students of the University of Kansas during the summer of 1928 ranked these items. They were asked to give the item which they considered most important a score of twenty, next in importance a score of nineteen, --- and the one of least importance a score of one. Space was provided for suggesting causes which they believed should be added to this list. From the summary of the rankings and suggestions of the forty graduate students a "checking sheet to be used by the Lowther Junior High School teachers was constructed.

1. See Appendix. p. 42
2. See Table XIII. p. 21
3. See Appendix. p. 42
From suggestions found by the writer in related studies other checking sheets were prepared for the use of the school nurse and the failing students.

Students who were failing at the close of any six weeks period were asked to mark a checking sheet indicating why they believed they had failed. They were encouraged to add other causes which they thought had contributed to their failure. The checking was done in group meetings conducted by the writer. The students were not asked to sign their names.

At the close of each six weeks period teachers of subjects in which the pupils were failing marked a checking sheet indicating why they believed the students had failed. The results of the teachers checkings were summarized and compared with the rankings of the graduate students.

The school nurse made a report regarding the physical condition of the failing students. School marks were taken from the permanent records in the principal's office.

1. See Appendix, p.48
2. See Appendix, p.47
3. See Appendix, p 47
At the close of the first semester only sixty of the failing students were found to be continuing in this school. This study was limited to the group of sixty. They were observed throughout the school year 1928-1929.

Just prior to the close of the first semester the sixty students were given the 1Otis Group Intelligence Scale, Advanced Examination: Form A; 2Terman Group Test of Mental Ability, Examination: Form A; and 3Stanford Achievement Test, Advanced Examination: Form A. These standard tests were given on different days and during regular school time. They were administered, scored and checked as prescribed by the instructions received therewith. The entire testing program was carried on under the direct supervision of the writer. The results of the Stanford Achievement and Terman Group Tests have been tabulated and used in formulating 4tables.

Failures in Mathematics, English, History, Geography, General Science, Domestic Science and Art, Manual Training, Citizenship, and Foreign Languages were considered.

1. See Appendix, p. 32
2. See Appendix, p. 50
3. See Appendix, p. 62
4. See pgs. 10-40
This study attempts to answer the following:

1. Who are the failures in Lowther Junior High School?
2. In what subjects are they failing?
3. Are these pupils below the average mentally?
4. What do these students think does most to cause their failures?
5. Why do the teachers think these students are failing?
6. What is the physical condition of these failing students?
CHAPTER II

PRESENTATION AND ANALYSIS OF DATA

This chapter contains tables and analysis of the data found. The data regarding causes of failure have been obtained from forty graduate students, sixty failing junior high school students, and teachers of these students. The information regarding the health of these students was obtained from the school nurse. Check sheets were used in obtaining these data.

The grades of the failing students were obtained from the records of Lowther Junior High School. Intelligence and Educational ratings were secured by administering standard tests.

2. Appendix. Pgs. 53
# TABLE I

**DISTRIBUTION OF STUDENTS WHO WERE FAILING IN THE LOWTHER JUNIOR HIGH SCHOOL ACCORDING TO MENTAL AND CHRONOLOGICAL AGE. (Terman).**

<table>
<thead>
<tr>
<th>Chronological Age</th>
<th>Mental Age</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>15</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

| Total             | 60         |

1. Seventeen (twenty-eight percent) of the students have a higher mental than chronological age.

2. Twelve (twenty percent) have a normal mental age.

3. Thirty (fifty percent) have a mental age less than their chronological age.

4. One student having a chronological age of thirteen has a mental age of eighteen.

5. Nine students have a chronological age of sixteen or more and a mental age of thirteen or less.

6. The median chronological age is 14.43 years.

7. The median mental age is 14.32 years.

8. The mental retardation is greater than the mental acceleration by a difference of 22 percent.
TABLE II

EDUCATIONAL AGES BY GRADES OF SIXTY FAILING STUDENTS IN THE
LOWTHER JUNIOR HIGH SCHOOL.
(Stanford)

<table>
<thead>
<tr>
<th>Grade</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seventh</td>
<td>1</td>
<td>4</td>
<td>14</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Eighth</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ninth</td>
<td>3</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>10</td>
<td>29</td>
<td>11</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>60</td>
</tr>
</tbody>
</table>

1. Thirty three percent of these students have a normal educational age.

2. Fifty one percent have an educational age below normal.

3. Fifteen percent have an educational age above normal.

4. Educational over-ageness is most pronounced in the seventh grade.

5. One seventh grade student is four years over-age educationally.

6. There is more retardation in the ninth grade than in the seventh and eighth grades combined.

7. Three ninth grade students are three years under-age.

8. The median educational age for the seventh grade is 13.5 years.

9. The median educational age for the eighth grade is 13.5 years. This is a retardation of .5 years.

10. The median educational age for the ninth grade is 13.9 years. This is a retardation of one and one-tenth years.
TABLE III
DISTRIBUTION OF STUDENTS WHO WERE FAILING IN THE LOWTHIER JUNIOR HIGH SCHOOL ACCORDING TO EDUCATIONAL AND CHRONOLOGICAL AGE. (Stanford)

<table>
<thead>
<tr>
<th>Chronological Age</th>
<th>Educational Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>11 12 13 14 15 16 17 Total</td>
</tr>
<tr>
<td>13</td>
<td>1 3 1 1 6</td>
</tr>
<tr>
<td>14</td>
<td>2 10 6 2 2 22</td>
</tr>
<tr>
<td>15</td>
<td>3 7 3 1 1 15</td>
</tr>
<tr>
<td>16</td>
<td>1 2 5 3 11</td>
</tr>
<tr>
<td>17</td>
<td>1 2 3</td>
</tr>
<tr>
<td>18</td>
<td>1 1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1 10 28 12 5 3 1 60</strong></td>
</tr>
</tbody>
</table>

1. The median chronological age is fourteen years.
2. The median educational age is thirteen and six tenths years.
3. One thirteen year old pupil has an educational age of seventeen years.
4. One eighteen year old pupil has an educational age of twelve years.
5. Fifteen of these pupils are retarded three or more years educationally.
6. Ten of these pupils have a normal educational age.
7. Nine students are accelerated one or more years educationally.
8. Sixty-eight percent of the pupils are retarded and fifteen percent are accelerated educationally.
TABLE IV

TABLE SHOWING THE READING AGES AND GRADES OF STUDENTS FAILING IN THE LOWTHER JUNIOR HIGH SCHOOL. (Stanford)

<table>
<thead>
<tr>
<th>Grade</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seventh</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eighth</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ninth</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>8</td>
<td>12</td>
<td>13</td>
<td>10</td>
<td>8</td>
<td>4</td>
<td>3</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Fifteen percent of the students have a normal reading age.
2. Thirty-one percent have a reading age above normal.
3. Fifty-three percent have a reading age below normal.
4. One seventh grade student has a reading age of nineteen. This is four years above normal. It is also four years above his chronological age.
5. One eighth grade student has a reading age of nine years.
6. Two seventh grade students have reading ages of seventeen years.
7. The median reading age for the seventh grade is thirteen and eight-tenths years.
8. The median reading age for the eighth grade is thirteen and two tenths years. This is six tenths of a year below the median of the seventh grade, and eight tenths of a year below the normal for eighth grade.
9. The median reading age of the ninth grade is fourteen and three tenths years. This is seven tenths years below normal.
10. More than half of the ninth grade students have a retarded reading age.
TABLE V

DISTRIBUTION OF INTELLIGENCE QUOTIENTS BY GRADE OF SIXTY FAILING STUDENTS IN LOWELL JUNIOR HIGH SCHOOL.
(Terman)

<table>
<thead>
<tr>
<th>Intelligence Quotient</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade 9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>130-139</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>120-129</td>
<td>1</td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>110-119</td>
<td>3</td>
<td>4</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>100-109</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>90 -99</td>
<td>8</td>
<td>5</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>80-89</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>70 -79</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>14</td>
<td>21</td>
<td>60</td>
</tr>
</tbody>
</table>

1. The median I.Q. for the entire group is 95.2.
2. The median I.Q. for the seventh grade is 92.1.
3. The median I.Q. for the eighth grade is 87.5.
4. The median I.Q. for the ninth grade is 99.1.
5. Six (ten percent) of these students are "Borderline" cases. (70-79).

1. Intelligence Testing by Pintner - p.97.
Table V
(continued)

6. Fourteen (twenty-three percent) of these students are "Backward". (30-39).

7. Thirty (fifty percent) of these students are "Normal". (90-109).

8. Seven (eleven and six tenths percent) of these students are "Bright". (110-119).

9. Two (three percent) of these students are "Very Bright". (120-129).

10. One student is "Very Superior". (130 and above).

11. Thirty three and one-third percent of the group are below normal.

12. Sixteen and two-thirds percent of the group are above normal.

13. Fifty percent of the group are normal.

14. Twice as many of the students are below normal as are above normal.

15. Terman found in his study of "The Intelligence of Pupils Who Repeat" in Central High School, Syracuse, N.Y., during the year 1920-21, that lack of mental ability perhaps explained the failure of fifty seven percent of the group.

16. Goodrich and Clements found in a study of high school students that the median I.Q. of the failing students was 96.6.

---

1. Intelligence Testing by Fintner - p.97.
<table>
<thead>
<tr>
<th>Educational Quotient</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade 9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>150-139</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>120-129</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>110-119</td>
<td>3</td>
<td>2</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>100-109</td>
<td>2</td>
<td>3</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>90 - 99</td>
<td>9</td>
<td>4</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>80 - 89</td>
<td>6</td>
<td>7</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>70 - 79</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>60 - 69</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25</strong></td>
<td><strong>14</strong></td>
<td><strong>21</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

1. The median E.Q. for the entire group is 92.1.
2. The median E.Q. for the seventh grade is 93.8.
3. The median E.Q. for the eighth grade is 85.9.
4. The median E.Q. for the ninth grade is 94.5.
5. Forty eight and three-tenths percent of the group have an E.Q. below ninety.
6. Eighty percent of the group have an E.Q. below one hundred.

7. Twenty percent of the group have an E.Q. of one hundred or above.

8. Forty six and six-tenths percent of the group have an E.Q. between eighty nine and one hundred ten.
TABLE VII

DISTRIBUTION OF ALL GRADES MADE BY THE SIXTY FAILING STUDENTS IN THE LOWTHER JUNIOR HIGH SCHOOL DURING THE 1928-1929 SCHOOL YEAR.
(Terman)

<table>
<thead>
<tr>
<th>I.Q.</th>
<th>No.</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>Total</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>139</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>12</td>
<td>5</td>
<td>24</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>130</td>
<td>2</td>
<td>1</td>
<td>9</td>
<td>19</td>
<td>17</td>
<td>46</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>129</td>
<td>7</td>
<td>31</td>
<td>60</td>
<td>45</td>
<td>21</td>
<td>2</td>
<td>159</td>
<td>4.2</td>
</tr>
<tr>
<td>120</td>
<td>11</td>
<td>60</td>
<td>83</td>
<td>95</td>
<td>12</td>
<td>255</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>119</td>
<td>19</td>
<td>74</td>
<td>182</td>
<td>47</td>
<td>9</td>
<td>412</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>14</td>
<td>78</td>
<td>144</td>
<td>64</td>
<td>10</td>
<td>296</td>
<td>4.6</td>
<td></td>
</tr>
<tr>
<td>109</td>
<td>6</td>
<td>27</td>
<td>64</td>
<td>34</td>
<td>5</td>
<td>130</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>99</td>
<td>90</td>
<td>60</td>
<td>31</td>
<td>64</td>
<td>215</td>
<td>95.8</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>144</td>
<td>144</td>
<td>64</td>
<td>10</td>
<td>296</td>
<td>4.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>130</td>
<td>272</td>
<td>547</td>
<td>410</td>
<td>86</td>
<td>7</td>
<td>1323</td>
<td>4.3</td>
</tr>
<tr>
<td>89</td>
<td>6</td>
<td>27</td>
<td>64</td>
<td>34</td>
<td>5</td>
<td>130</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>99</td>
<td>90</td>
<td>60</td>
<td>31</td>
<td>64</td>
<td>215</td>
<td>95.8</td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>144</td>
<td>144</td>
<td>64</td>
<td>10</td>
<td>296</td>
<td>4.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>6</td>
<td>27</td>
<td>64</td>
<td>34</td>
<td>5</td>
<td>130</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>272</td>
<td>547</td>
<td>410</td>
<td>86</td>
<td>7</td>
<td>1323</td>
<td>4.3</td>
</tr>
<tr>
<td>Percent</td>
<td>20.5</td>
<td>41.3</td>
<td>31.0</td>
<td>6.5</td>
<td>0.5</td>
<td>99.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. In Lowther Junior High School the following grades are used: E is 97-100%; G is 90-96%; M is 80-86%; P is 70-79%. In dealing with the grades in this study we have considered a grade of E as 1, G as 2, M as 3, P as 4, and F as 5.

2. Sixty-two percent of these grades were below "three".

3. Thirty-eight percent of the failing grades were made by the students having an I.Q. below normal.

4. Forty-nine percent of the failing grades were made by students with normal I.Q.'s.

5. One and one-tenth percent of the failing grades were made by students having I.Q.'s above normal.
| TABLE VII |
| (continued) |

6. Only two failing grades were made by the "very bright" and "superior" students.

7. Only students above normal received grades of "one".

8. The one "superior" student received five grades of "one", while the other fifty nine students received two grades of "one".

9. The number of failing grades was approximately three times the number of "ones and "twos".

10. Seven percent of all of the grades were "ones" and "twos".
TABLE VIII

DISTRIBUTION OF FINAL GRADES MADE BY THE SIXTY FAILING PUPILS IN THE LOWTHER JUNIOR HIGH SCHOOL DURING THE 1928-1929 SCHOOL YEAR.

<table>
<thead>
<tr>
<th>I.Q.</th>
<th>No.</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>Total</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>139</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td>8</td>
<td>2.5</td>
</tr>
<tr>
<td>130</td>
<td>2</td>
<td>3</td>
<td>8</td>
<td>5</td>
<td></td>
<td></td>
<td>16</td>
<td>3.4</td>
</tr>
<tr>
<td>129</td>
<td>7</td>
<td>13</td>
<td>21</td>
<td>15</td>
<td>5</td>
<td></td>
<td>54</td>
<td>4.4</td>
</tr>
<tr>
<td>120</td>
<td>11</td>
<td>19</td>
<td>31</td>
<td>34</td>
<td>2</td>
<td></td>
<td>86</td>
<td>4.3</td>
</tr>
<tr>
<td>119</td>
<td>19</td>
<td>24</td>
<td>67</td>
<td>47</td>
<td>2</td>
<td></td>
<td>140</td>
<td>4.3</td>
</tr>
<tr>
<td>109</td>
<td>14</td>
<td>25</td>
<td>51</td>
<td>25</td>
<td>1</td>
<td></td>
<td>102</td>
<td>4.5</td>
</tr>
<tr>
<td>100</td>
<td>1</td>
<td>13</td>
<td>22</td>
<td>10</td>
<td>1</td>
<td></td>
<td>46</td>
<td>4.6</td>
</tr>
<tr>
<td>99</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>94</td>
<td>4.4</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>94</td>
<td>195</td>
<td>141</td>
<td>20</td>
<td>2</td>
<td>452</td>
<td>4.4</td>
</tr>
<tr>
<td>Percent</td>
<td>20.3</td>
<td>43.1</td>
<td>31.2</td>
<td>4.4</td>
<td>0.4</td>
<td></td>
<td>99.9</td>
<td></td>
</tr>
</tbody>
</table>

1. There are forty seven times as many F's as E's.
2. Sixty three and nine-tenths percent of the grades were F's and P's.
3. The very bright and superior students did not receive any failing grades at the close of the semester.
4. The median "final grade" is one-tenth of a point lower than the median of all grades (table VII).
5. There is a marked tendency for the number of failing grades per pupil to increase as the I.Q. decreases.
A graph showing the normal distribution and the actual distribution of grades received by the sixth failing students.

1. The normal curve shows seven percent E, twenty-four percent C, thirty-eight percent M, twenty-four percent P, and seven percent F.

2. The actual curve shows five tenths of one percent I, six and five tenths percent G, thirty-one percent B, forty-one and three tenths percent F, and twenty and seven tenths percent F.
6. The median grades show a tendency to decrease as the I. Q. decreases.

7. School children tend to show about the same resemblance in achievement in school subjects that they do in intelligence.

1. Resemblance of Siblings in Intelligence and Achievement, by Gertrude H. Hildreth, Columbia Contributions, No. 186, p. 59.
TABLE IX

TABLE SHOWING THE PERCENT OF FAILING MARKS BY GRADES AND
BY SUBJECTS RECEIVED BY THE SIXTY FAILING STUDENTS.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Seventh</td>
<td>15.0</td>
<td>27.7</td>
<td>15.6</td>
<td>16.6</td>
<td>7.4</td>
<td>6.2</td>
<td>4.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eighth</td>
<td>41.1</td>
<td>33.3</td>
<td>7.6</td>
<td>25.0</td>
<td>20.9</td>
<td>14.2</td>
<td>12.8</td>
<td>14.8</td>
<td>13.1</td>
</tr>
<tr>
<td>Ninth</td>
<td>42.8</td>
<td>31.6</td>
<td>23.7</td>
<td></td>
<td>33.7</td>
<td>16.5</td>
<td>27.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>31.7</td>
<td>31.7</td>
<td>21.8</td>
<td>27.5</td>
<td>23.0</td>
<td>16.1</td>
<td>14.7</td>
<td>12.3</td>
<td>9.1</td>
</tr>
</tbody>
</table>

1. The two subjects showing the highest percent of failing marks were History and Foreign Language.

2. The subject showing the lowest percent of failing marks was General Science.

3. The highest percent of failures were among the eighth and ninth grade History students. History is an eighth grade subject.

4. The lowest percent of failures was found in ninth grade English.

5. O'Brien found in his study of high school students that Mathematics, Latin, and English cause sixty percent of the failures.

6. O'Brien also found 24.1 percent of the failures occurred in Mathematics, 16.5 percent occurred in English, 34.2 percent occurred in Foreign Language, 0.9 percent in History and 10.3 percent in Science.

1. O'Brien - The High School Failures, p.19
A diagram showing, on a percentage basis, the normal distribution and the actual distribution of the final semester grades received by sixty milking students.

1. The normal curve shows seven percent E, twenty-four percent G, thirty-eight percent M, twenty-four percent P, and seven percent F.

2. The actual curve shows four tenths of one percent E, four and four tenths percent G, thirty-one and two tenths percent M, forty-three and one tenth percent P, and ninety and eight tenths percent F.
### TABLE X

PERCENT OF FAILING FINAL MARKS BY GRADES AND BY SUBJECTS RECEIVED BY SIXTY FAILING STUDENTS IN LOUISIANA JUNIOR HIGH SCHOOL.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Seventh</td>
<td>19.0</td>
<td>22.2</td>
<td></td>
<td></td>
<td>14.2</td>
<td>12.2</td>
<td>14.4</td>
<td>6.2</td>
<td>6.2</td>
<td></td>
</tr>
<tr>
<td>Eighth</td>
<td>27.5</td>
<td>50.0</td>
<td></td>
<td></td>
<td>17.5</td>
<td>7.1</td>
<td>10.0</td>
<td>10.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ninth</td>
<td>33.1</td>
<td>40.0</td>
<td></td>
<td></td>
<td>21.4</td>
<td>31.7</td>
<td>31.6</td>
<td>28.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>36.1</td>
<td>25.0</td>
<td>25.0</td>
<td>21.4</td>
<td>21.1</td>
<td>17.2</td>
<td>14.4</td>
<td>13.1</td>
<td>8.3</td>
<td></td>
</tr>
</tbody>
</table>

1. The subject showing the highest percent of failures was Foreign Language.

2. The subject showing the lowest percent of failures was General Science.

3. Fifty percent of all eighth grade students taking Geography received failing marks. Geography is a seventh grade subject.

4. Forty percent of ninth grade History students received failing marks. History is an eighth grade subject.

5. There was a higher percent of failures in the ninth grade than in the seventh or eighth grade.

6. There was a higher percent of failures in the eighth grade than in the seventh grade.
### TABLE XI

NUMBER, SEX, AND SCHOOL MARKS OF THE SIXTY FAILING STUDENTS BY GRADES.

<table>
<thead>
<tr>
<th>Grades</th>
<th>Sex</th>
<th>No.</th>
<th>Percent Failing Marks</th>
<th>1st Median Marks</th>
<th>Median for Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seventh Boys</td>
<td>18</td>
<td></td>
<td>15.9</td>
<td>3.99</td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>7</td>
<td></td>
<td>10.4</td>
<td>3.82</td>
<td>3.85</td>
</tr>
<tr>
<td>Eighth Boys</td>
<td>11</td>
<td></td>
<td>15.3</td>
<td>4.57</td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>3</td>
<td></td>
<td>22.9</td>
<td>4.61</td>
<td>4.44</td>
</tr>
<tr>
<td>Ninth Boys</td>
<td>19</td>
<td></td>
<td>29.6</td>
<td>4.55</td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>2</td>
<td></td>
<td>16.6</td>
<td>4.52</td>
<td>4.54</td>
</tr>
<tr>
<td>All Boys</td>
<td>43</td>
<td></td>
<td>22.0</td>
<td>4.50</td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>12</td>
<td></td>
<td>14.1</td>
<td>4.21</td>
<td>4.28</td>
</tr>
</tbody>
</table>

1. Forty-eight or eighty percent of the failing students were boys.
2. The lowest median grade was made by the eighth grade girls.
3. The highest median grade was made by the seventh grade girls.
4. The boys received 7.9% more failing marks than the girls.
5. The highest percent of failing marks was received by the ninth grade boys.

1. See Table VII for explanation of how numerical marks were obtained.
6. The lowest percent of failing marks was received by the seventh grade girls.

7. The median grades showed a tendency to become lower with each group.

8. The median grade for the girls is slightly higher than that of the boys.
TABLE XII
RANKING OF TWENTY CAUSES OF JUNIOR HIGH SCHOOL FAILURES AS DONE BY FORTY GRADUATE STUDENTS.

<table>
<thead>
<tr>
<th>Cause</th>
<th>Score</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1 2 1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>8</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td></td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>13</td>
<td>2</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Chapter I page 5 explains in detail how this list of causes for junior high school failures was obtained and how the ranking was done.

2. Appendix page 50 shows the checking sheet upon which the ranking was done.

3. Table XIII page 29 shows the list of causes of junior high school failures and a summary of this sheet.
### TABLE XIII

**SUMMARY OF RANKING OF THE TWENTY CAUSES OF JUNIOR HIGH SCHOOL FAILURES AS DONE BY FORTY GRADUATE STUDENTS.**

<table>
<thead>
<tr>
<th>Causes of Failure in Jr. H.S.</th>
<th>Mean</th>
<th>Mode</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor study habits</td>
<td>17.67</td>
<td>20</td>
<td>5-20</td>
</tr>
<tr>
<td>Poor Reading ability</td>
<td>17.17</td>
<td>19</td>
<td>4-20</td>
</tr>
<tr>
<td>Poor foundation</td>
<td>15.32</td>
<td>20</td>
<td>9-20</td>
</tr>
<tr>
<td>Lack of interest in subject</td>
<td>15.02</td>
<td>17</td>
<td>7-20</td>
</tr>
<tr>
<td>Lack of native intelligence</td>
<td>13.35</td>
<td>20</td>
<td>1-20</td>
</tr>
<tr>
<td>Attendance</td>
<td>12.60</td>
<td>11</td>
<td>3-20</td>
</tr>
<tr>
<td>Poor home conditions</td>
<td>11.55</td>
<td>10</td>
<td>2-20</td>
</tr>
<tr>
<td>Lack of parent's cooperation</td>
<td>10.75</td>
<td>12</td>
<td>2-17</td>
</tr>
<tr>
<td>Lack of home study</td>
<td>10.65</td>
<td>12</td>
<td>1-20</td>
</tr>
<tr>
<td>Physical defects</td>
<td>10.27</td>
<td>15</td>
<td>1-18</td>
</tr>
<tr>
<td>General health conditions</td>
<td>10.17</td>
<td>10</td>
<td>1-16</td>
</tr>
<tr>
<td>Poor written work</td>
<td>9.32</td>
<td>8</td>
<td>2-17</td>
</tr>
<tr>
<td>Poor oral work</td>
<td>8.60</td>
<td>10</td>
<td>1-13</td>
</tr>
<tr>
<td>In too many school activities</td>
<td>7.75</td>
<td>13</td>
<td>1-19</td>
</tr>
<tr>
<td>Pupil dislikes teacher</td>
<td>7.65</td>
<td>11</td>
<td>1-19</td>
</tr>
<tr>
<td>Lack of sleep</td>
<td>7.50</td>
<td>6</td>
<td>1-19</td>
</tr>
</tbody>
</table>

*Table continued on next page*
TABLE XIII
(continued)

<table>
<thead>
<tr>
<th>Causes of Failure in Jr. H.S.</th>
<th>Mean</th>
<th>Mode</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too much work outside of school</td>
<td>6.40</td>
<td>4</td>
<td>1-17</td>
</tr>
<tr>
<td>Timidity</td>
<td>6.02</td>
<td>4</td>
<td>1-15</td>
</tr>
<tr>
<td>Unaccustomed to departmental work</td>
<td>5.65</td>
<td>2</td>
<td>1-18</td>
</tr>
<tr>
<td>Teacher does not observe study periods</td>
<td>5.07</td>
<td>2</td>
<td>1-13</td>
</tr>
</tbody>
</table>

1. Twelve different causes were placed at the bottom of the list.
2. Eight different causes were placed at the top of the list.
3. The ranking on 15 causes had a range of fifteen or more points.
4. Two items were placed at the top and also at the bottom of the list.
5. It is evident that there is a very wide range of opinion as to the chief causes of school failures.
### TABLE XIV
SUMMARY OF RESULTS OF CHECKING CAUSES OF FAILURE BY TEACHERS OF PUPILS WHO FAILED.

<table>
<thead>
<tr>
<th>Causes</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor study habits</td>
<td>155 XXXXXXXXXXXXXX</td>
<td>19.6</td>
</tr>
<tr>
<td>Lack of home study</td>
<td>85 XXXXXX</td>
<td>10.5</td>
</tr>
<tr>
<td>Poor written work</td>
<td>83 XXXXXX</td>
<td>10.5</td>
</tr>
<tr>
<td>Lack of int. in subject</td>
<td>82 XXXXXX</td>
<td>10.4</td>
</tr>
<tr>
<td>Poor foundation</td>
<td>81 XXXXXX</td>
<td>10.3</td>
</tr>
<tr>
<td>Poor reading ability</td>
<td>73 XXXXXX</td>
<td>9.2</td>
</tr>
<tr>
<td>Lack of native intelligence</td>
<td>62 XXXXXXX</td>
<td>7.8</td>
</tr>
<tr>
<td>Poor home conditions</td>
<td>32 XXXXX</td>
<td>4.1</td>
</tr>
<tr>
<td>Irregular attendance</td>
<td>31 XXXX</td>
<td>3.9</td>
</tr>
<tr>
<td>Bluffs</td>
<td>21 XXX</td>
<td>2.7</td>
</tr>
<tr>
<td>Timidity</td>
<td>14 XX</td>
<td>1.8</td>
</tr>
<tr>
<td>Lack of parents cooperation</td>
<td>14 XX</td>
<td>1.8</td>
</tr>
<tr>
<td>Lack of sleep</td>
<td>13 XX</td>
<td>1.6</td>
</tr>
<tr>
<td>Too much work outside sch.</td>
<td>12 XX</td>
<td>1.5</td>
</tr>
<tr>
<td>In too many outside activ.</td>
<td>8 X</td>
<td>1.0</td>
</tr>
<tr>
<td>Physical defects</td>
<td>8 X</td>
<td>1.0</td>
</tr>
<tr>
<td>Gen. Health conditions</td>
<td>7 X</td>
<td>.9</td>
</tr>
<tr>
<td>Cheats</td>
<td>5 X</td>
<td>.5</td>
</tr>
<tr>
<td>Unaccustomed to dept. work</td>
<td>4 X</td>
<td>.4</td>
</tr>
<tr>
<td>In too many sch. activities</td>
<td>2 X</td>
<td>.3</td>
</tr>
<tr>
<td>Size of class</td>
<td>0</td>
<td>.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>99.8</td>
</tr>
</tbody>
</table>
TABLE XIV
(continued)

1. No teacher marked failure in any case as being due to the size of class.

2. Poor study habits was marked as a cause of failure approximately twice as many times as any other reason.

3. Seventy percent of the causes for failure were attributed to the first six causes listed in the above list.

4. Fifty percent of the causes were attributed to the first three causes.

5. It is evident that the teachers do not consider many school failures as being due to poor physical condition of pupils.

6. Physical defects are far from being the chief factor in retardation.

7. Perhaps fifteen percent of retardation is due to irregular attendance.

8. The causes of failure appear to be as much the fault of the school and its procedure as of the individual pupil himself.

9. J.B. Edmondson of University of Wisconsin found that principals are inclined to place the blame for pupil failures on the school rather than on the child.

1. Woodrow—Brightness and Dullness of Children p. 133
2. Number indicated the number of times the teachers checked each item.
3. Reavis—"Pupil Adjustment."
### TABLE XV

**TOTAL NUMBER OF TIMES THAT FAILING PUPILS CHECKED CAUSES OF FAILURE.**

<table>
<thead>
<tr>
<th>Cause</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of home study</td>
<td>67</td>
<td>38.1</td>
</tr>
<tr>
<td>Lack of interest in subject</td>
<td>52</td>
<td>29.5</td>
</tr>
<tr>
<td>Poor reading ability</td>
<td>26</td>
<td>14.8</td>
</tr>
<tr>
<td>Poor previous preparation</td>
<td>11</td>
<td>6.3</td>
</tr>
<tr>
<td>Teacher does not make assignment clear</td>
<td>11</td>
<td>6.3</td>
</tr>
<tr>
<td>Irregular attendance</td>
<td>4</td>
<td>2.3</td>
</tr>
<tr>
<td>Too much work outside of school</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>Poor health</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Teacher does not observe study period</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td><strong>Total reasons</strong></td>
<td><strong>176</strong></td>
<td><strong>99.3</strong></td>
</tr>
</tbody>
</table>

1. Lack of home study did not mean the same in each case. Some of the pupils interpretations were as follows:
   a. Did not keep up note book.
   b. Did not have book report.
   c. Did not do outside reading.
   d. No study at all (evidently wasted time at school).
2. The remarks which the pupils added frequently included such as the following:
   a. Do not like subject.
   b. Too much playing and acting foolish.
   c. Did not work hard enough.
   d. Could not get along with the teacher.

3. One hundred nineteen or sixty seven percent of the reasons checked were: Lack of home study and Lack of interest in subject.

4. Twelve or six and nine-tenths percent of the reasons checked placed the blame directly upon the teachers.

5. Four or two and three-tenths percent of the reasons checked were Irregular attendance.

6. Woodrow says "Perhaps fifteen percent of retardation is due to irregular attendance".

7. Reavis found in a study of high school boys that ten and seven-tenths percent of their reasons checked were lack of interest. Eighteen and four-tenths of the reasons placed the blame directly upon the teachers.

8. In a study of failing pupils in a Seattle high school it was found that among the most common causes of failure given by pupils were: Failure to concentrate, Dislike of teachers, Irregular attendance, Poor study habits, Poor foundation, and Lack of interest.

1. Woodrow—Brightness and Dullness of Children p.123
### Table XVI

**Summary of the Report of School Nurse Concerning Sixty Failing Pupils.**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Number of cases found</th>
<th>Percent of sixty pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seemed all right</td>
<td>33 XXXXXXXXXXXXXXXX</td>
<td>55.0</td>
</tr>
<tr>
<td>Defective teeth</td>
<td>14 XXXXXXXX</td>
<td>23.3</td>
</tr>
<tr>
<td>Defective tonsils</td>
<td>10 XXXXX</td>
<td>16.6</td>
</tr>
<tr>
<td>Underweight</td>
<td>10 XXXXX</td>
<td>16.6</td>
</tr>
<tr>
<td>Poor home conditions</td>
<td>9 XXXX</td>
<td>15.0</td>
</tr>
<tr>
<td>Defective eyesight</td>
<td>8 XXXX</td>
<td>13.3</td>
</tr>
<tr>
<td>Adenoids</td>
<td>6 XXX</td>
<td>10.0</td>
</tr>
<tr>
<td>Undernourished</td>
<td>4 XX</td>
<td>6.6</td>
</tr>
<tr>
<td>Needs more sleep</td>
<td>2 X</td>
<td>3.3</td>
</tr>
<tr>
<td>Overweight</td>
<td>2 X</td>
<td>3.3</td>
</tr>
<tr>
<td>Defective hearing</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Gen. health bad</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

1. Over one-half of the students seemed healthy.
2. No student had general bad health or defective hearing.
3. Defective teeth and defective tonsils seemed to be the most common physical defects.
4. A study of maladjustments made by Ohio University found that school failures are caused not so much by sudden illness as by chronic illnesses, lowered vitality, sensory defects and unhygienic living.

5. Woodrow states that bodily defects occur very frequently in mentally retarded children, also that a well developed body is something of an index of intelligence.

6. All investigations agree that physical defects are important in helping to produce failure in school work.

7. Ayers in an investigation of New York City boys, ten to fourteen years of age, found that forty two percent of the dullards had defective teeth.

8. Enlarged tonsils are often the index of other bad conditions. No child with chronically diseased tonsils can possibly be well.

9. From fifteen to thirty percent of school children have seriously defective vision.

10. Statistics show that defects of breathing are decidedly more common among retarded children than among those up to grade.

TABLE XVII

THE RANKING OF TWENTY CAUSES OF JUNIOR HIGH SCHOOL FAILURES
BY FORTY GRADUATE STUDENTS COMPARED WITH THE RANKING OF
THESE SAME CAUSES BY THE TEACHERS OF THESE FAILING
STUDENTS.

<table>
<thead>
<tr>
<th>Cause</th>
<th>Ranking of Graduate Stud.</th>
<th>Result of Tokr. chk.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor study habits</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Poor reading ability</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>Poor foundation</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Lack of interest in subject</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Lack of native intelligence</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Attendance</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Poor home conditions</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Lack of parents cooperation</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Lack of home study</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>Physical defects</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>General health conditions</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Poor written work</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Poor oral work</td>
<td>8</td>
<td>**</td>
</tr>
<tr>
<td>In too many school activities</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Pupil dislikes teacher</td>
<td>6</td>
<td>*</td>
</tr>
<tr>
<td>Lack of sleep</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Too much work outside of school</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

Continued on next page.
TABLE XVII
(continued)

<table>
<thead>
<tr>
<th></th>
<th>Ranking of</th>
<th>Percent of</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Graduate Stud</td>
<td>Tchr. chk.</td>
</tr>
<tr>
<td>Timidity</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Unaccustomed to departmental work</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Teacher does not observe study period</td>
<td>1</td>
<td>**</td>
</tr>
<tr>
<td>Bluffs</td>
<td>**</td>
<td>11</td>
</tr>
<tr>
<td>Too many outside activities</td>
<td>**</td>
<td>6</td>
</tr>
<tr>
<td>Cheats</td>
<td>**</td>
<td>3</td>
</tr>
<tr>
<td>Size of class</td>
<td>**</td>
<td>0</td>
</tr>
</tbody>
</table>

1. The rankings used in this comparison were obtained from tables XIV and XVII, pages 31 and 37. The rank of twenty means that it was considered most important.

2. Items starred were not included on checking sheet indicated. In attempting to adopt the checking sheet to the situation three items were dropped and four were added to the original list.

3. Both graduate students and teachers placed Poor Study Habits at the head of the list. They also agreed on the relative importance of two other items, Lack of Interest in Subject and Unaccustomed to Departmental work.

4. The greatest difference occurred in the ranking of "Poor Written Work". The junior high school teachers ranked this item eighteen while the graduate students ranked it nine.

5. This comparison seems to indicate a rather close agreement as to the importance of the first seven causes listed. Thereafter there appears to be a wide difference of opinion.
TABLE XVIII

A COMPARISON OF RANKINGS OF THE GRADUATE STUDENTS, JUNIOR HIGH SCHOOL TEACHERS, AND FAILING STUDENTS ON THE ITEMS COMMON TO ALL THREE CHECKING SHEETS.

<table>
<thead>
<tr>
<th></th>
<th>Pupils</th>
<th>Teachers</th>
<th>Grad. Stud.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of home study</td>
<td>7</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Lack of interest in subject</td>
<td>6</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Poor reading ability</td>
<td>5</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Poor previous preparation</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Irregular attendance</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Too much work outside of school</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Poor health</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

1. These seven items were common to the checking sheets used by the graduate students, teachers and failing pupils. They were ranked in accordance to their relative position in tables 13, 14, and 15 respectively. The item which the group had indicated most important in the causes of failure was given a rank of seven, second most important a rank of six, etc.

2. The teachers and pupils agreed on all but two of the rankings. The two items were reversed.

3. The graduate students did not agree with either the teachers or pupils on any of the rankings.
CHAPTER III

SUMMARY AND CONCLUSIONS.

It is the purpose of this study to reveal facts regarding failing students in Lowther Junior High School. The data collected for the study have been obtained from sixty failing students, their teachers, the school nurse, and the school records.

A study of the results shows that the mental abilities of these students range from "border line" to "very superior". Half of the group are normal mentally. One third are below normal (87.5). The median I.Q.'s for the seventh and ninth grade are normal.

The median I.Q. for the group is lower than the median I.Q. The median E.O. for the eighth grade is lower than that of the seventh or ninth grades. Eighty percent of these students have E.O.'s below one hundred. Forty eight percent have E.O.'s below ninety.

The median mental age is one tenth of a year less than the median chronological age. There is twenty two percent more mental retardation than acceleration.

The median educational age is 13.6 years. The median chronological age is 14 years. One fourth of the group is retarded three or more years educationally. Sixty eight
percent are retarded and fifteen percent are accelerated educationally. There is more retardation in the ninth grade than in the seventh and eighth grades combined.

Fifty three percent of these students have a reading age below normal. Thirty one percent have a reading age above normal. The median reading ages for the eighth and ninth grades are below normal. More than half of the ninth grade students have a retarded reading age.

Thirty eight percent of the failing grades were made by students whose I.Q's were below normal. Forty nine percent of the failing grades were made by students with normal I.Q's. One percent of the failing grades was made by students having I.Q's above normal. The "very bright" and "superior" students did not receive any failing marks at the end of the semester. There is a marked tendency for the number of failing grades per pupil to increase as the I.Q decreases. The median grades show a tendency to decrease as the I.Q decreases.

The subjects showing the highest percent of failing marks are History and Foreign Language. The lowest percent of failing marks are in General Science and Manual Training. The percent of failures increases in the eighth and ninth grades.
Eighty percent of the failing students are boys. The boys average 7.9 percent more failing marks than the girls. The highest percent of failing marks are received by ninth grade boys.

There is a wide range of opinion as to the causes of school failures. Graduate students, teachers and the failing students agree that "Poor study habits" are the chief cause for school failures. "Poor reading ability", "Poor previous preparation", and "Lack of interest in subject" rank high. It seems that the chief causes of failure are relatively few and are well agreed upon by both teachers and pupils. The pupils place about seven percent of the blame upon the teachers.

Forty five percent of the failing students show some physical defect. Defective teeth and tonsils occur most frequently. Defective eyesight and adenoids exist to the extent of thirteen and ten percent respectively.

CONCLUSIONS

The chief cause of failure seems to be the lack of study or of knowing how to study. These pupils apparently need to be taught how to study. Poor reading ability may be largely responsible for poor study habits. There
appears to be a direct relationship between the I Q and success in school work. The curriculum or the methods of instruction are not meeting the needs of boys and girls with the same degree of efficiency. One fourth of these students may be failing due to lack of mental ability to carry the type of work assigned.

It has been the purpose of this study to reveal facts regarding sixty Junior High School failing students. It has solved no problems, but has merely focused attention more strongly on the reasons back of conditions that exist in the Lowther Junior High School, and in any unselected body of pupils.
BIBLIOGRAPHY.

Bliss, Don C. — "High School Failures ".
Journal of Educational Administration and Supervision.,
March 1917, Vol 3, Pg. 185.

Gowing, Helen H. — "Failures in Our High Schools ".

Gardner, C. A. — "A Study of the Causes of High School Failures ".

Garrett. — "Statistics in Psychology and Education ".

Goodeich and Clements. — "Comparison of a Group of High School Failures with a Group of Successful Students ".

Hildreth, Gertrude H. — "Resemblance of Siblings in Intelligeance and Achievement ".
Columbia Contributions, No. 186. Pg. 69.

Koons. — "The Junior High School ".

McCall. — "How to Measure in Education ".

O'Brien. — "The High School Failures ".
Columbia Contributions, No. 186, Columbia University, New York.

Percival. — "A Study of High School Failures ".
Kansas University Library, Lawrence, Kansas. 1925.
BIBLIOGRAPHY.


Thorndyke. - Educational Psychology". Teachers College, Columbia University, New York. 1914.

Will you please check the items which you believe have contributed most to the above students' failure?

__ Poor study habits.
__ Poor reading ability.
__ Poor foundation.
__ Lack of interest in subject.
__ Lack of native intelligence.
__ Irregular attendance.
__ Poor home conditions.
__ Lack of parents' cooperation.
__ Lack of home study.
__ Physical defects.
__ General health conditions.
__ Poor written work.
__ In too many school activities.
__ In too many outside activities.
__ Lack of sleep.
__ Too much work outside of school.
__ Timidity.
__ Unaccustomed to departmental work.
__ Bluffs.
__ Cheats.
__ Size of class.

Remarks: ________________________________
Grade ______ Subject

Please check the following items which you feel did most to cause your failure:

____ Lack of interest in subject.
____ Teacher does not observe study period.
____ Teacher does not make assignments clear.
____ Poor health.
____ Lack of home study.
____ Irregular attendance.
____ Poor reading ability.
____ Too much work outside of school.
____ Poor previous preparation.

Remarks: ________________________________
Pupil

Grade

Subject

School Nurse

Will you please check the following items which apply to the above pupil?

___ Eye sight defective.

___ Hearing defective.

Tonsils

___ Tonsils defective.

___ Adenoids.

___ Tooth defective.

___ Over weight.

___ Under nourished.

___ General health bad.

___ Poor home conditions.

___ Needs more sleep.

Remarks: ________________________________

_____________________________________

_____________________________________
CAUSES OF JUNIOR HIGH SCHOOL FAILURES

Will you please rank the following in order in which you consider them significant causes of junior high school failures? Give the item of most importance a score of 20, next in importance a score of 19, ...., and the one of least importance a score of 1.

- Lack of native intelligence.
- Poor reading ability.
- Poor study habits.
- Poor foundation.
- Physical defects (Eye, ear, nose, throat, nervousness)
- Attendance.
- Lack of sleep.
- General health conditions.
- Timidity.
- Poor written work.
- Poor oral work.
- Teacher does not observe study periods.
- Lack of parents cooperation.
- Lack of interest in subject.
- Too much work outside of school.
- Lack of home study.
- Poor home conditions.
- Unaccustomed to departmental work.
- Pupil dislikes teacher.
- In too many school activities.
TERMAN GROUP TEST OF MENTAL ABILITY
For Grades 7 to 12
Prepared by Lewis M. Terman, Stanford University, California

EXAMINATION: FORM A

1. Name  
   First name  
   Last name

2. Boy or girl  
   Grade  
   High or Low

3. Age last birthday  
   Date of birthday  
   Month  
   Day  
   Year

4. Name of city (or county)

5. Name of school

6. Name of teacher

7. Date of this examination  
   Month  
   Day  
   Year

Do not turn the page until you are told to.

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
<th>Remarks or Further Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Best Answer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Word Meaning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Logical Selection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Arithmetic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Sentence Meaning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Analogies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Mixed Sentences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Classification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Number Series</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Copyright, 1920, by World Book Company. Copyright in Great Britain. All rights reserved. TOTMA-27
TEST 1. INFORMATION

Draw a line under the ONE word that makes the sentence true, as shown in the sample.

SAMPLE. Our first President was
Adams Jefferson Lincoln Washington

1. Coffee is a kind of
bark berry leaf root

2. Sirloin is a cut of
beef mutton pork veal

3. Gasoline comes from
grains petroleum turpentine seeds

4. Most exports go from
Boston San Francisco New Orleans New York.

5. The number of pounds in a ton is
1000 2000 3000 4000

6. Napoleon was defeated at
Leipzig Paris Verdun Waterloo

7. Emeralds are usually
blue green red yellow

8. The optic nerve is for
seeing hearing tasting feeling

9. Larceny is a term used in
medicine theology law pedagogy

10. Sponges come from
animals farms forests mines

11. Confucius founded the religion of the
Persians Italians Chinese Indians

12. The larynx is in the
abdomen head throat shoulder

13. The piccolo is used in
farming music photography typewriting

14. The kilowatt measures
rainfall wind-power electricity water-power

15. The guillotine causes
dead death disease fever sickness

16. A character in “David Copperfield” is
Sindbad Uriah Heep Rebecca Hamlet

17. A windlass is used for
boring cutting lifting squeezing

18. A great law-giver of the Hebrews was
Abraham David Moses Saul

19. A six-sided figure is called a
scholium parallelogram hexagon trapezium

20. A meter is nearest in length to the
inch foot yard rod

Right
TEST 2. BEST ANSWER

Read each question or statement and make a cross before the BEST answer, as shown in the sample.

**Sample**

Why do we buy clocks? Because

1. We like to hear them strike.
2. They have hands.
3. They tell us the time.

1. Spokes of a wheel are often made of hickory because
   1. Hickory is tough.
   2. It cuts easily.
   3. It takes paint nicely.

2. The saying, “A watched pot never boils,” means
   1. We should never watch a pot on the fire.
   2. Boiling takes a long time.
   3. Time passes slowly when we are waiting for something.

3. A train is harder to stop than an automobile because
   1. It has more wheels.
   2. It is heavier.
   3. Its brakes are not so good.

4. The saying, “Make hay while the sun shines,” means
   1. Hay is made in summer.
   2. We should make the most of our opportunities.
   3. Hay should not be cut at night.

5. If the earth were nearer the sun
   1. The stars would disappear.
   2. Our months would be longer.
   3. The earth would be warmer.

6. The saying, “If wishes were horses, beggars would ride,” means
   1. Wishing doesn’t get us very far.
   2. Beggars often wish for horses to ride.
   3. Beggars are always asking for something.

7. The saying, “Little strokes fell great oaks,” means
   1. Oak trees are weak.
   2. Little strokes are best.
   3. Continued effort brings results.

8. A steel battleship floats because
   1. The engines hold it up.
   2. It has much air space inside.
   3. It contains some wood.

9. The feathers on a bird’s wings help him to fly because
   1. They make a wide, light surface.
   2. They keep the air off his body.
   3. They decrease the bird’s weight.

10. The saying, “A carpenter should stick to his bench,” means
    1. Carpenters should not work without benches.
    2. Carpenters should not be idle.
    3. One should work at the thing he can do best.

11. The saying, “One swallow does not make a summer,” means
    1. Swallows come back for the summer.
    2. A single sign is not sufficient proof.
    3. Many birds add to the pleasures of summer.

Right .......... × 2 = Score ........
## TEST 3. WORD MEANING

When two words mean the SAME, draw a line under “SAME.”
When they mean the OPPOSITE, draw a line under “OPPOSITE.”

<table>
<thead>
<tr>
<th>SAMPLES</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>fall — drop</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>north — south</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>1 expel — retain</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>2 comfort — console</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>3 waste — conserve</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>4 monotony — variety</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>5 quell — subdue</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>6 major — minor</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>7 boldness — audacity</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>8 exult — rejoice</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>9 prohibit — allow</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>10 debase — degrade</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>11 recline — stand</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>12 approve — veto</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>13 amateur — expert</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>14 evade — shun</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>15 tart — acid</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>16 concede — deny</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>17 tonic — stimulant</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>18 incite — quell</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>19 economy — frugality</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>20 rash — prudent</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>21 obtuse — acute</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>22 transient — permanent</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>23 expel — eject</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>24 hoax — deception</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>25 docile — submissive</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>26 wax — wane</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>27 incite — instigate</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>28 reverence — veneration</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>29 asset — liability</td>
<td>same — opposite</td>
<td></td>
</tr>
<tr>
<td>30 appease — placate</td>
<td>same — opposite</td>
<td></td>
</tr>
</tbody>
</table>
TEST 4. LOGICAL SELECTION

In each sentence draw a line under the TWO words that tell what the thing ALWAYS has. Underline TWO, and ONLY TWO, in each line.

Sample: A man always has

**body** cap gloves **mouth** money

1. A horse always has
   *harness* hoofs shoes **stable** **tail**

2. A circle always has
   *altitude* circumference latitude **longitude** radius

3. A bird always has
   *bones* eggs beak nest **song**

4. Music always has
   listener piano rhythm sound **violin**

5. An object always has
   smell **size** taste **value** weight

6. Conversation always has
   agreement persons questions **wit** speech

7. A banquet always has
   food **music** persons speeches toastmaster

8. A pistol always has
   barrel bullet cartridge sights **trigger**

9. A ship always has
   engine guns **keel** rudder sails

10. A debt always involves
    creditor debtor **interest** mortgage payment

11. A game always has
    cards contestants **forfeits** penalties rules

12. A magazine always has
    advertisements paper pictures print stories

13. A museum always has
    animals arrangement collections minerals visitors

14. A forest always has
    animals flowers shade **underbrush** trees

15. A citizen always has
    country occupation **privileges** property vote

16. Controversy always involves
    claims disagreement dislike enmity hatred

17. War always has
    airplanes cannons combat rifles **soldiers**

18. Obstacles always bring
    difficulty discouragement failure **hindrance** stimulation

19. Abhorrence always involves
    aversion dislike fear rage **timidity**

20. Compromise always involves
    adjustment agreement friendship respect satisfaction

Right
TEST 5. ARITHMETIC

Find the answers as quickly as you can.
Write the answers on the dotted lines.
Use the bottom of the page to figure on.

1 How many hours will it take a person to go 66 miles at the rate of 6 miles an hour? Answer

2 At the rate of 2 for 5 cents, how many pencils can you buy for 50 cents? Answer

3 If a man earns $20 a week and spends $14, how long will it take him to save $300? Answer

4 $2 \times 3 \times 4 \times 6$ is how many times as much as $3 \times 4$? Answer

5 If two pies cost 66 cents, what does a sixth of a pie cost? Answer

6 What is 16$\frac{2}{3}$ per cent of $120$? Answer

7 4 per cent of $1000$ is the same as 8 per cent of what amount? Answer

8 A has $180$, B has $\frac{3}{4}$ as much as A, and C has $\frac{1}{2}$ as much as B. How much have all together? Answer

9 The capacity of a rectangular bin is 48 cubic feet. If the bin is 6 feet long and 4 feet wide, how deep is it? Answer

10 If it takes 7 men 2 days to dig a 140-foot ditch, how many men are needed to dig it in half a day? Answer

11 A man spends $\frac{1}{2}$ of his salary for board and room, and $\frac{3}{8}$ for all other expenses. What per cent of his salary does he save? 'Answer

12 If a man runs 100 yards in 10 seconds, how many feet does he run in $\frac{1}{8}$ of a second? Answer

Right \ldots \ldots \times 2 = \text{Score} \ldots \ldots
TEST 6. SENTENCE MEANING

Draw a line under the right answer, as shown in the samples.

<table>
<thead>
<tr>
<th>SAMPLES</th>
<th>Is coal obtained from mines?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Are all men six feet tall?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

1. Does a conscientious person ever make mistakes? Yes No 1
2. Is an alloy a kind of musical instrument? Yes No 2
3. Is scurvy a kind of medicine? Yes No 3
4. Are mysterious things often uncanny? Yes No 4
5. Are destitute persons often subjects of charity? Yes No 5

6. Are anonymous letters ever properly signed? Yes No 6
7. Is the mimeograph sometimes used by stenographers? Yes No 7
8. Is a curriculum intended for horses? Yes No 8
9. Are proteids essential to health? Yes No 9
10. Does “perfunctory” mean the same as “careful”? Yes No 10

11. Are premeditated deeds always wicked? Yes No 11
12. Do alleged facts often require verification? Yes No 12
13. Are sheep carnivorous? Yes No 13
14. Are aristocrats subservient to their inferiors? Yes No 14
15. Are venerable people usually respected? Yes No 15
16. Is clematis sometimes cultivated? Yes No 16
17. Are ultimate results the last to appear? Yes No 17
18. Are cerebral hemorrhages helpful to thinking? Yes No 18
19. Are all people religious who have hallucinations? Yes No 19
20. Are intermittent sounds discontinuous? Yes No 20

21. Are sable colors preferred for nations' flags? Yes No 21
22. Does social contact tend to reduce eccentricities? Yes No 22
23. Are tentative decisions usually final? Yes No 23
24. Is rancor usually characterized by persistence? Yes No 24

Right ......... Wrong ......... Score .........
TEST 7. ANALOGIES

SAMPLES

| Ear is to hear as eye is to | Table see hand play |
| Hat is to head as shoe is to | Arm coat foot leg |

Do them all like samples.

1. Coat is to wear as bread is to eat
   starve water cook

2. Week is to month as month is to year hour minute century

3. Monday is to Tuesday as Friday is to week Thursday day Saturday

4. Tell is to told as speak is to sing
   spoke speaking sang

5. Lion is to animal as rose is to smell
   leaf plant thorn

6. Cat is to tiger as dog is to wolf
   bark bite snap

7. Success is to joy as failure is to sadness
   luck fail work

8. Liberty is to freedom as bondage is to negro slavery free suffer

9. Cry is to laugh as sadness is to death
   joy coffin doctor

10. Tiger is to hair as trout is to water
    fish scales swims

11. 1 is to 3 as 9 is to 18 27 36 45

12. Lead is to heavy as cork is to bottle weight light float

13. Poison is to death as food is to eat
    bird life bad

14. 4 is to 16 as 5 is to 7 45 35 25

15. Food is to hunger as water is to drink clear thirst pure

16. b is to d as second is to third
    later fourth last

17. City is to mayor as army is to navy
    soldier general private

18. Here is to there as this is to these
    those that then

19. Subject is to predicate as noun is to
    pronoun adverb verb adjective

20. Corrupt is to depraved as sacred is to
    Bible hallowed prayer Sunday

Right
The words in each sentence below are mixed up. If what a sentence means is TRUE, draw a line under “TRUE.” If what it means is FALSE, draw a line under “FALSE.”

**SAMPLES**

<table>
<thead>
<tr>
<th>Hear are with to ears</th>
<th>true</th>
<th>false</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eat gunpowder to good is</td>
<td>true</td>
<td>false</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 true bought cannot friendship be</td>
<td>1</td>
</tr>
<tr>
<td>2 good sea drink to is water</td>
<td>2</td>
</tr>
<tr>
<td>3 of is the peace war opposite</td>
<td>3</td>
</tr>
<tr>
<td>4 get grow they as children taller older</td>
<td>4</td>
</tr>
<tr>
<td>5 horses automobile an are than slower</td>
<td>5</td>
</tr>
<tr>
<td>6 never deeds rewarded be should good</td>
<td>6</td>
</tr>
<tr>
<td>7 four hundred all pages contain books</td>
<td>7</td>
</tr>
<tr>
<td>8 to advice sometimes is good follow hard</td>
<td>8</td>
</tr>
<tr>
<td>9 envy bad greed traits are and</td>
<td>9</td>
</tr>
<tr>
<td>10 grow an than strawberries oak tree higher</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 external deceive never appearances us</td>
<td>11</td>
</tr>
<tr>
<td>12 never is man what show a deeds</td>
<td>12</td>
</tr>
<tr>
<td>13 hatred bad unfriendliness traits are and</td>
<td>13</td>
</tr>
<tr>
<td>14 often judge can we actions man his by a</td>
<td>14</td>
</tr>
<tr>
<td>15 in are always American cities born presidents</td>
<td>15</td>
</tr>
<tr>
<td>16 certain always death of cause kinds sickness</td>
<td>16</td>
</tr>
<tr>
<td>17 are sheet blankets as as a never warm</td>
<td>17</td>
</tr>
<tr>
<td>18 never who heedless those stumble are</td>
<td>18</td>
</tr>
</tbody>
</table>

*Right* \*Wrong* \*Score\*
TEST 9. CLASSIFICATION

SAMPLES
1 bullet cannon gun sword pencil
2 Canada Chicago China India France

In each line cross out the word that does not belong there. Cross out JUST ONE WORD in each line.

1 Frank James John Sarah William
2 Baptist Catholic Methodist Presbyterian Republican
3 automobile bicycle buggy telegraph train
4 Collie Holstein Shepherd Spitz Terrier
5 hop run skip stand walk
6 death grief picnic poverty sadness
7 bed chair dish sofa table
8 hard rough smooth soft sweet
9 mechanic doctor lawyer preacher teacher
10 Christ Confucius Mohammed Moses Caesar
11 butterfly hawk ostrich robin swallow
12 cloth cotton flax hemp wool
13 digestion hearing sight smell touch
14 down hither recent up yonder
15 anger hatred joy pity reasoning
16 Australia Cuba Iceland Ireland Spain
17 Dewey Farragut Grant Paul Jones Schley
18 give lend lose keep waste

Right
In each row try to find out how the numbers are made up, then on the two dotted lines write the TWO numbers that should come next.

<table>
<thead>
<tr>
<th>Samples</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
<th>35</th>
<th>20</th>
<th>18</th>
<th>16</th>
<th>14</th>
<th>12</th>
<th>10</th>
<th>8</th>
</tr>
</thead>
</table>

1st Row
8  7  6  5  4  3  

2d Row
3  8  13  18  23  28  

3d Row
11$\frac{3}{4}$  12  12$\frac{1}{2}$  12$\frac{1}{3}$  12$\frac{2}{3}$  

4th Row
8  8  6  6  4  4  

5th Row
1  2  4  8  16  32  

6th Row
4  3  5  4  6  5  7  

7th Row
16  8  4  2  1  $\frac{1}{2}$  

8th Row
8  9  12  13  16  17  

9th Row
7  11  15  16  20  24  25  29  

10th Row
31.3  40.3  49.3  58.3  67.3  76.3  

11th Row
$\frac{1}{6}$  $\frac{1}{3}$  1  5  

12th Row
3  4  6  9  13  18  

Right ....... $\times 2 = \text{Score} .........$
Stanford Achievement Test

By TRUMAN L. KELLEY, GILES M. RUCH, and LEWIS M. TERMAN

ADVANCED EXAMINATION: FORM A
FOR GRADES 4-8

Name...................................................Grade.......... Boy or girl ..........

Age...........When is your next birthday?..............How old will you be then?........

Name of school..............................................Date........

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
<th>Subject Scores</th>
<th>Age Equivalents (Subject Ages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reading: Paragraph Meaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Reading: Sentence Meaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Reading: Word Meaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL READING SCORE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Arithmetic: Computation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Arithmetic: Reasoning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL ARITHMETIC SCORE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Nature Study and Science</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. History and Literature</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Language Usage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Dictation Exercise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite Score (Sum of Subject Scores + 10)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational Age</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE.** This page may be torn off and filed as a record.
**EDUCATIONAL PROFILE CHART: ADVANCED EXAMINATION**

| Test 1 | Test 2 | Test 3 | Read. total | Test 4, Art. Comp. | Test 5, Art. Reas. | Arith. total | Test 6, Na. St. & Sc. | Test 7, Hist. & Lit. | Test 8, Lang. Usage | Test 9, Dictation | Total Score | Educational Age | Chronological Age | Grade* |
|-------|-------|-------|-------------|-------------------|-------------------|-------------|----------------------|-------------------|-------------------|--------------|------------|----------------|-----------------|----------------|--------|
| 102   | -75   | -52   | -259        | -179              | -132              | -311        | -86                   | -84               | -54               | 206          | -100       | -18-6        | -18-6            | 15            | 2        |
| 104   | -75   | -52   | -259        | -177              | -132              | -309        | -85                   | -83               | -50               | 200          | -97        | -17-11       | -17-11           | 17            | 5        |
| 105   | -75   | -52   | -255        | -181              | -132              | -295        | -84                   | -83               | -51               | 198          | -96        | -17-5        | -17-5            | 16            | 6        |
| 106   | -75   | -52   | -259        | -183              | -132              | -297        | -84                   | -83               | -48               | 195          | -93        | -17-4        | -17-4            | 15            | 7        |
| 107   | -75   | -52   | -251        | -185              | -132              | -288        | -84                   | -83               | -49               | 191          | -93        | -17-2        | -17-2            | 14            | 8        |
| 98    | -75   | -52   | -243        | -174              | -132              | -282        | -84                   | -83               | -50               | 194          | -94        | -17-4        | -17-4            | 13            | 9        |
| 99    | -75   | -52   | -241        | -174              | -132              | -294        | -84                   | -83               | -48               | 192          | -93        | -17-5        | -17-5            | 12            | 10       |
| 16    | -75   | -52   | -249        | -182              | -132              | -306        | -84                   | -83               | -50               | 196          | -92        | -17-4        | -17-4            | 11            | 11       |
| 100   | -75   | -52   | -250        | -187              | -132              | -310        | -84                   | -83               | -50               | 194          | -93        | -17-2        | -17-2            | 10            | 12       |
| 101   | -75   | -52   | -251        | -187              | -131              | -307        | -84                   | -83               | -51               | 193          | -94        | -17-4        | -17-4            | 9             | 13       |
| 102   | -75   | -52   | -251        | -187              | -132              | -309        | -84                   | -83               | -50               | 192          | -94        | -17-4        | -17-4            | 8             | 14       |
| 116   | -75   | -52   | -263        | -190              | -132              | -326        | -84                   | -83               | -51               | 194          | -93        | -17-5        | -17-5            | 7             | 15       |
| 98    | -75   | -52   | -243        | -174              | -131              | -282        | -82                   | -82               | 50                | 191          | -93        | -17-4        | -17-4            | 6             | 16       |
| 99    | -75   | -52   | -241        | -174              | -132              | -294        | -84                   | -83               | -48               | 192          | -93        | -17-5        | -17-5            | 5             | 17       |
| 100   | -75   | -52   | -250        | -187              | -132              | -310        | -84                   | -83               | -50               | 194          | -93        | -17-2        | -17-2            | 4             | 18       |
| 101   | -75   | -52   | -251        | -189              | -132              | -308        | -84                   | -83               | -50               | 193          | -94        | -17-4        | -17-4            | 3             | 19       |
| 102   | -75   | -52   | -251        | -187              | -132              | -309        | -84                   | -83               | -51               | 192          | -93        | -17-5        | -17-5            | 2             | 20       |
| 103   | -75   | -52   | -258        | -175              | -132              | -307        | -85                   | -83               | -50               | 199          | -95        | -18-4        | -18-4            | 1             | 21       |
| 104   | -75   | -52   | -259        | -183              | -132              | -299        | -84                   | -83               | -50               | 196          | -94        | -17-5        | -17-5            | 0             | 22       |
| 105   | -75   | -52   | -255        | -178              | -132              | -303        | -84                   | -83               | -48               | 190          | -95        | -18-4        | -18-4            | -1            | 23       |
| 106   | -75   | -52   | -259        | -175              | -132              | -311        | -86                   | -84               | -54               | 206          | -100       | -18-6        | -18-6            | -2            | 24       |
| 98    | -75   | -52   | -243        | -174              | -132              | -282        | -82                   | -82               | 50                | 190          | -95        | -18-4        | -18-4            | -3            | 25       |
| 99    | -75   | -52   | -241        | -174              | -132              | -284        | -84                   | -83               | 48                | 191          | -94        | -17-5        | -17-5            | -4            | 26       |
| 16    | -75   | -52   | -249        | -174              | -132              | -282        | -84                   | -83               | 49                | 191          | -94        | -17-4        | -17-4            | -5            | 27       |
| 100   | -75   | -52   | -250        | -174              | -132              | -294        | -84                   | -83               | 48                | 191          | -94        | -17-2        | -17-2            | -6            | 28       |
| 101   | -75   | -52   | -251        | -174              | -132              | -295        | -84                   | -83               | 49                | 191          | -94        | -17-4        | -17-4            | -7            | 29       |

*Grade defined as in Table 5, Manual of Directions, Revised.*

**Educational ages above this point are extrapolated values.**

For explanation of vertical bars see Manual of Directions, Revised.

[2]
TEST 1. READING: PARAGRAPH MEANING

Sample: Dick and Tom were playing ball in the field. Dick was throwing the ball and..................
was trying to catch it.

Write JUST ONE WORD on each dotted line.

1 Fanny has a little red hen. Every day the hen goes to her nest and lays an egg for Fanny to eat. Then she makes a funny noise to tell Fanny to come and get the..................

2 A kitten can climb a tree, but a dog cannot. This is very lucky for Nellie’s kitten. Every time Joe’s big dog comes along the kitten climbs a tree and the..................cannot follow.

3 Anna had never seen a squirrel in her life, although she had always wanted to very much. One day when she was playing under a tree she heard a funny little noise over her head. She looked up, and what do you think she saw? Up there in the..................was the very thing she had always wanted to see, a ..................

4 John and Joe played one day till they were very hungry; so John went into the house and asked his mother for something to ..................When he came out again he had a big apple for himself and another for ..................

5 One day when Jane was sweeping she found a dime on the floor under the bed. They could not find out whose dime it was, so Jane’s mother gave it to her. Now, every time Jane ..................the floor she looks carefully under the bed for another..........

6 Helen and Kate pulled their sled through the deep snow to the top of the hill and soon were coasting swiftly down again. They did this over and over. The ..................was so deep that they found it hard work to drag the ..................to the top.

7 Once a black raven wanted to have white feathers like a swan. The raven saw that the swan lived in the water, and thought it was the water that made the swan’s feathers so white. So the ..................decided to wash his feathers every day to see if it would not make them ..................

8 Birds’ eggs are almost as different from each other as are the birds themselves. The robin lays four or five blue eggs. The dove lays two white eggs. The sparrow lays six or eight speckled eggs. If we should find a nest with four blue eggs in it, we could be pretty sure that it was the nest of a ..................rather than of a ..................or dove.

9 Once there lived on a mountain near a village an immense giant whose cruelty kept the people of the village in great terror. However, there was one person in the village who was not afraid of the giant. This was a young soldier who carried a magic sword that a fairy had given him. Once when the ..................came down from the ..................the soldier attacked him with his magic ..................and killed him.

10 Once a hen was so foolish as to go to a fox and ask him to look after her chicks while she went to the barnyard to find some worms for her chicks. The fox was of course quite willing. The hen was gone a long time. When she finally returned, she found that the fox had eaten all her chicks. Since then no ..................has employed a ..................as a nurse.

Turn the page and go right on.
11 When the bear appeared near the hut, Walter was alone. His father had driven to the village, that morning, several miles away. Fortunately he had left his gun hanging on the wall loaded and ready for service. Walter was excited, but he did not hesitate. Quickly seizing the gun he ran out.

12 In a certain village a ton of coal costs just as much as a cord of wood, but it produces twice as much heat. Therefore the poor families in this village should be advised to burn coal rather than wood.

13 “Come on,” called Joe, “let’s go for a swim down by Jones’ Point, where the river is deep.” “No,” said Pete, “let’s swim down by Duggan’s, where the water is warmer.” “It isn’t because the water is warm that you want to go there, but because you can’t swim,” said Joe.

14 Richard and Miss Cabot quickly found their way alone to the house of Mr. Smith on Craven Street. Miss Cabot left Richard in the carriage, walked quickly to the door, and sending up her card by the servant, requested to see Mr. Smith. The servant soon returned and begged her to come in. As soon as she had done so, Miss Cabot introduced herself to Mr. Smith and begged him to come out and talk with Richard, who was waiting outside in the carriage.

15 Joe made up a game which he called “Jack-alack.” One person called Jack must climb a tree and hang by his arms from a low bough. The others stand behind him and say in unison, “Alas, alack, he fell on his back,” and while they are saying it, one of them hits Jack with a bean bag. If Jack can see or guess who did it, he may drop down, and the guilty person takes his place. Otherwise he has to stay there for another turn and sing out, “Alas, alack, another whack.” It is quite a game and Jack must have strong arms.

16 It is well established that the bee, which is commonly supposed to be so industrious, really works only two or three hours a day. The man who works eight or ten hours a day is therefore far more industrious than the bee.

17 Boys and girls know my name. And mothers and fathers, too. Big folks love me. You do, too. The first letters in the first four sentences of this paragraph spell my name; so write it here.

18 Energy is a measure of the fullness of life and is indispensable for genius. No energy at all is death. Idiots are feeble and listless. Nearly all the leaders of mankind have been noted for their remarkable energy.

19 Deciduous trees lose their leaves in winter, while evergreens, as their name implies, do not. Therefore, in forests composed of deciduous trees the ground is less shaded in winter than is the case in forests whose trees are evergreens.

20 Some historians believe that the spread of anti-slavery feeling among the people of the North previous to the Civil War was due less to the moral issue involved than to the fact that they recognized the system of slavery as a menace to the industrial system of free labor.

Go right on to next page.
TEST 1, CONTINUED

21 If I were writing about the rich, I should be inclined to divide them, according to their attitude toward life, into workers and parasites. The motto of the worker is, "I owe the world a life," and the motto of the .................. is, "The .................. owes me a living."

22 Caution, when not present in excess, is a desirable trait. Often it saves one from disappointment or failure. Occasionally, however, one finds a person so extremely .................. that his will is paralyzed and he is totally unable to set about any new undertaking. Too much .................. is indeed often .................. than too little.

23 A whale is not a fish, even though it does live in water. A fish has no lungs, is cold-blooded, and absorbs oxygen from the water through its gills; but a whale is warm-blooded and has a genuine set of lungs. In consequence, in bodily structure the .................. is .................. like a shark, which is a true fish, than it is like a horse.

24 The brook on our farm has many whims. It ripples over bright and shiny rocks, and falls into a placid little pool so clear that I can see the pebbles on the bottom and can see myself down there, too. As I look straight down, it is hard to tell whether what I see is my nose or a .................., but as I move a little, that which I see stands still, so I know it is not .................. Farther on the brook forgets the placid pool and tumbles over roots and rocks. It does, indeed, have many ..................

25 To pant for recognition, to yearn to impress one's personality upon one's fellow-men, is the essence of ambition. The ambitious person may think that he merely thirsts to "do something" or "be somebody," but really what he craves is to figure potently in the minds of others, to be greatly loved, admired, or feared. To reap a success which no one .................. does not satisfy the yearnings of the .................. individual.

26 Washington was a very silent man. Of no man in the world's history do we have so few sayings of a personal kind. As for talking about himself, that was something in which he almost never indulged. Yet it would be a great error to interpret his .................. as an indication that he was in any sense cold or unfeeling.

27 As a rule, it is more economical to remember things by associating them clearly and vigorously than by going through many repetitions of them. Thus, a clear understanding of the causes for the Democratic victory in the national election in 1916 will be .................. effective in remembering the fact than a dozen .................. of the statement "Woodrow Wilson was elected in 1916."

28 Fundamentally, education depends upon the capacity of a person to profit by past experiences. Past situations modify present and future adjustments. Education in its broadest sense means acquiring experiences that serve to .................. existing inherited or acquired tendencies of behavior.

29 "Naïve" and "unsophisticated" are frequently confused. The former suggests a type of behavior which is artless, spontaneous, and free from the restraints of custom. The latter implies fully as great lack of knowledge of social usage, and, in addition, conduct which is primitive and perchance inelegant. Thus, the .................. youth was the first to enter the car, and his .................. little sister warmly kissed him in the presence of the king. We may also say that a country boy is .................. with respect to city life and customs.

Test 1. Number of blanks correctly filled .............. \( \times 2 = \text{Score} \) ..............
TEST 2. READING: SENTENCE MEANING

Samples: Can dogs bark? ......................... Yes  No
Does a cat have six legs? ..................... Yes  No

Read each question and draw a line under the right answer.

1  Is milk white?  ......................... Yes  No  1
2  Do we sleep in beds? ..................... Yes  No  2
3  Is the day as dark as night?  ......... Yes  No  3
4  Is green a color?  ......................... Yes  No  4
5  Is smoke always yellow? ............... Yes  No  5
6  Do men and women dress just alike?  Yes  No  6
7  Do ships sail on the sea? ............... Yes  No  7
8  Are all chimneys made of brass?  Yes  No  8
9  Are rocks hard?  ......................... Yes  No  9
10 Is everybody as huge as a giant?  Yes  No 10
11 Do pupils always have excellent memories?  Yes  No 11
12 Are brooms used to sweep bedrooms?  Yes  No 12
13 Are machines ever useful?  ............. Yes  No 13
14 Are sugar and salt sold in stores?  Yes  No 14
15 Are geese generally clad in bonnets?  Yes  No 15
16 Do lambs roar?  ......................... Yes  No 16
17 Does crime always bring happiness?  Yes  No 17
18 Does justice sometimes seem cruel?  Yes  No 18
19 Could one cradle hold eighty infants?  Yes  No 19
20 Is a beetle very different from a mole?  Yes  No 20
21 Does the friendship of a cheerful person make us unhappy?  Yes  No 21
22 Is a dime less than a nickel?  ......... Yes  No 22
23 Is the guilty thief always located?  Yes  No 23
24 Is it ever important to hurry?  .......... Yes  No 24
25 Might a prisoner feel sorrow at the ruin he has caused?  Yes  No 25
26 Are all antique benches made of bamboo?  Yes  No 26
27 Are battleships dedicated to warfare?  Yes  No 27
28 Can we discern things clearly in a dense fog?  Yes  No 28
29 Might a person suffer confusion during an examination?  Yes  No 29
30 Are marmalade and gruel made of milkweed?  Yes  No 30
31 Could delicious chocolate be served at a festival?  Yes  No 31
32 Do all university professors give instruction in science?  Yes  No 32
33 Does it take courage to perform a very dangerous task?  Yes  No 33
34 Should one always be censured for playing a flute by the fireplace?  Yes  No 34
35 Are homely people always loathed and disliked?  Yes  No 35
36 Is it deemed delightful to suffer a bloody defeat?  Yes  No 36
37 Would a man be fortunate if he could flee from a famine?  Yes  No 37
38 May careful observation be of considerable help in decreasing mistakes?  Yes  No 38
39 Does speaking with brevity necessarily mean that one is peevish?  Yes  No 39
40 Are chimes ever played in a cathedral?  Yes  No 40

Go right on to next page.
<table>
<thead>
<tr>
<th>Number</th>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Correctness</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>Do repeated interruptions sometimes exasperate us?</td>
<td>Yes</td>
<td>No</td>
<td>41</td>
</tr>
<tr>
<td>42</td>
<td>Should thieves be encouraged by giving them magnificent rewards?</td>
<td>Yes</td>
<td>No</td>
<td>42</td>
</tr>
<tr>
<td>43</td>
<td>Are locusts and gnats generally believed to enjoy immortality?</td>
<td>Yes</td>
<td>No</td>
<td>43</td>
</tr>
<tr>
<td>44</td>
<td>Might an accidental outbreak cause anxiety?</td>
<td>Yes</td>
<td>No</td>
<td>44</td>
</tr>
<tr>
<td>45</td>
<td>May shortages often be prevented by foresight?</td>
<td>Yes</td>
<td>No</td>
<td>45</td>
</tr>
<tr>
<td>46</td>
<td>Is an annual appeal made once a week?</td>
<td>Yes</td>
<td>No</td>
<td>46</td>
</tr>
<tr>
<td>47</td>
<td>May occasional opposition awaken us to greater endeavor?</td>
<td>Yes</td>
<td>No</td>
<td>47</td>
</tr>
<tr>
<td>48</td>
<td>Is every earl destined to become a genius or a conqueror?</td>
<td>Yes</td>
<td>No</td>
<td>48</td>
</tr>
<tr>
<td>49</td>
<td>Might a person show unfeigned enjoyment of a symphony?</td>
<td>Yes</td>
<td>No</td>
<td>49</td>
</tr>
<tr>
<td>50</td>
<td>Are we irresistibly led to confide in every near-by idler?</td>
<td>Yes</td>
<td>No</td>
<td>50</td>
</tr>
<tr>
<td>51</td>
<td>Do any considerable percentage of motorists use headlights?</td>
<td>Yes</td>
<td>No</td>
<td>51</td>
</tr>
<tr>
<td>52</td>
<td>Does an auctioneer boost prices with earnestness?</td>
<td>Yes</td>
<td>No</td>
<td>52</td>
</tr>
<tr>
<td>53</td>
<td>Is it advisable to use dynamite as a lubricant?</td>
<td>Yes</td>
<td>No</td>
<td>53</td>
</tr>
<tr>
<td>54</td>
<td>Is a person in a frenzy likely to make wild gestures?</td>
<td>Yes</td>
<td>No</td>
<td>54</td>
</tr>
<tr>
<td>55</td>
<td>Should the captain of a yacht consider the weather forecast?</td>
<td>Yes</td>
<td>No</td>
<td>55</td>
</tr>
<tr>
<td>56</td>
<td>Would it take a considerable income to provide a sumptuous wardrobe?</td>
<td>Yes</td>
<td>No</td>
<td>56</td>
</tr>
<tr>
<td>57</td>
<td>Is it disgraceful to teach a defenseless person decimals?</td>
<td>Yes</td>
<td>No</td>
<td>57</td>
</tr>
<tr>
<td>58</td>
<td>Is the idea of burial usually attractive?</td>
<td>Yes</td>
<td>No</td>
<td>58</td>
</tr>
<tr>
<td>59</td>
<td>May allies make exertion to enter into a federation?</td>
<td>Yes</td>
<td>No</td>
<td>59</td>
</tr>
<tr>
<td>60</td>
<td>Should enthusiastic homage make a man indignant?</td>
<td>Yes</td>
<td>No</td>
<td>60</td>
</tr>
<tr>
<td>61</td>
<td>Could the imperious actions of a lordly person become notorious?</td>
<td>Yes</td>
<td>No</td>
<td>61</td>
</tr>
<tr>
<td>62</td>
<td>Is all adventurous activity to be deplored?</td>
<td>Yes</td>
<td>No</td>
<td>62</td>
</tr>
<tr>
<td>63</td>
<td>Should a person be advised to sacrifice a good opportunity?</td>
<td>Yes</td>
<td>No</td>
<td>63</td>
</tr>
<tr>
<td>64</td>
<td>Is a harmonious alliance sometimes expedient?</td>
<td>Yes</td>
<td>No</td>
<td>64</td>
</tr>
<tr>
<td>65</td>
<td>Could an eloquent lawmaker do anything heinous?</td>
<td>Yes</td>
<td>No</td>
<td>65</td>
</tr>
<tr>
<td>66</td>
<td>Is boric acid a chemical made of graphite?</td>
<td>Yes</td>
<td>No</td>
<td>66</td>
</tr>
<tr>
<td>67</td>
<td>Are all festivities characterized by extravagance?</td>
<td>Yes</td>
<td>No</td>
<td>67</td>
</tr>
<tr>
<td>68</td>
<td>May imposition upon others become habitual?</td>
<td>Yes</td>
<td>No</td>
<td>68</td>
</tr>
<tr>
<td>69</td>
<td>Is a scarecrow a kind of inoffensive imitation?</td>
<td>Yes</td>
<td>No</td>
<td>69</td>
</tr>
<tr>
<td>70</td>
<td>Does bliss always befall desperate people?</td>
<td>Yes</td>
<td>No</td>
<td>70</td>
</tr>
<tr>
<td>71</td>
<td>Could congressional action cause the people to be dissatisfied?</td>
<td>Yes</td>
<td>No</td>
<td>71</td>
</tr>
<tr>
<td>72</td>
<td>May seeing a person drunk decrease one’s admiration for him?</td>
<td>Yes</td>
<td>No</td>
<td>72</td>
</tr>
<tr>
<td>73</td>
<td>Could an inexperienced person be jovial and fascinating?</td>
<td>Yes</td>
<td>No</td>
<td>73</td>
</tr>
<tr>
<td>74</td>
<td>Is one often assaulted by a boon companion?</td>
<td>Yes</td>
<td>No</td>
<td>74</td>
</tr>
<tr>
<td>75</td>
<td>Ought accursed liars to be suppressed?</td>
<td>Yes</td>
<td>No</td>
<td>75</td>
</tr>
<tr>
<td>76</td>
<td>Might an involuntary impulse impel one to be malicious?</td>
<td>Yes</td>
<td>No</td>
<td>76</td>
</tr>
<tr>
<td>77</td>
<td>Is one necessarily inhospitable who dislikes an obnoxious guest?</td>
<td>Yes</td>
<td>No</td>
<td>77</td>
</tr>
<tr>
<td>78</td>
<td>Does extreme audacity sometimes make us stand aghast?</td>
<td>Yes</td>
<td>No</td>
<td>78</td>
</tr>
<tr>
<td>79</td>
<td>Is humanity subject to joyous emotions?</td>
<td>Yes</td>
<td>No</td>
<td>79</td>
</tr>
<tr>
<td>80</td>
<td>Might a hysterical person given to rashness be intolerable?</td>
<td>Yes</td>
<td>No</td>
<td>80</td>
</tr>
</tbody>
</table>

Number right: 31

Number wrong: 49

Test 2. Score (subtract)
TEST 3. READING: WORD MEANING

Samples: Bread is something to
          catch  drink  eat  throw  wear
          A robin is a
          bird  cat  dog  girl  horse

In each sentence draw a line under the word that makes the sentence true.

1. March is the name of a ______
   day  food  month  week  year

2. A fat person is always ______
   bad  blue  cold  heavy  little

3. A thing that is perfect is always ______
   close  early  hard  little  right

4. A farmer often raises ______
   bears  corn  gold  paper  pictures

5. Cotton is ______
   cool  dark  heavy  soft  sweet

6. A husband is sometimes a ______
   father  flower  mother  sister  town

7. A path is a place to ______
   eat  dress  die  live  walk

8. A maiden is a ______
   bird  boy  girl  king  plant

9. A lion is ______
   blue  fine  hot  strong  sweet

10. Islands are ______
    land  ships  soldiers  time  water

11. The ocean is ______
    fire  land  paper  water  wood

12. Rice is a ______
    battle  beast  bell  cloud  grain

13. A dove is a ______
    bird  boat  fish  horse  sheep

14. To be silent is to be ______
    heard  loud  quiet  still  wild

15. Olives are to ______
    burn  drink  eat  ride  wear

16. To crush is to ______
    break  escape  guard  hold  plant

17. Rapid means ______
    long  much  quick  small  soft

18. A moment means ______
    color  form  money  time  place

19. To stitch is to ______
    reward  sew  starve  suggest  tempt

20. A question is something we ______
    answer  build  eat  grow  kill

21. Harbors are for ______
    churches  cows  gardens  horses  ships

22. To polish is to ______
    bribe  brighten  smite  thrive  traverse

23. To pronounce is to ______
    sail  show  speak  stand  watch

24. A physician is a ______
    child  doctor  master  noise  valley

25. A customer is a person who ______
    buys  draws  fishes  hunts  sells

26. To wander is to ______
    improve  locate  roam  situate  wail

27. To be sober is to be ______
    funny  grave  happy  noisy  wild

28. An orphan is one who has no ______
    clothing  education  hair  parents  teeth

29. To be active is to be ______
    hospitable  humorous  ignoble  indolent  sprightly

30. To be wretched is to be ______
    proud  silent  swift  unhappy  valuable

31. Independence means ______
    blame  custom  freedom  mercy  virtue

32. Agriculture refers to ______
    authority  appearance  defense  farming  mystery

33. To inquire is to ______
    appear  ask  rest  sleep  watch

34. A tavern is a ______
    companion  funeral  parcel  park  hotel

35. To be saucy is to be ______
    affectionate  agreeable  devoted  dignified  rude

36. An argument is a ______
    discussion  gully  gymnasium  penance  perjury

37. Jealous means ______
    affectionate  appeased  benevolent  envious  sympathetic

38. Meek means ______
    gaudy  gentle  mean  strength  tight

39. Gorgeous means ______
    frisky  gigantic  hereditary  magnificent  malicious

40. A barge is a kind of ______
    animal  boat  castle  fruit  vegetable

Go right on to next page.
Situation refers to noise number place pleasure time ............... 41
To plan is to banish bestow design betray defeat ................. 42
Behavior refers to position conduct progress revenge temper .... 43
A vagabond is a kite lantern nightingale tramp scholar .......... 44
Ambition means aspiration frivolity loitering remorse slothfulness 45
A sluggard is ambitious considerate divine earnest lazy .......... 46
Victorious means baffled frustrated triumphant unstable vagrant 47
To mingle is to mislead blend sanction screech scurry ............ 48
To heed is to escape fancy hurry notice prove .................... 49
Dignified means lonely monstrous prominent spiritual stately .... 50
An opponent is a delicacy antagonist detective diplomat hostess 51
To prophesy is to assess bemoan cancel disclaim foretell .......... 52
Imperial affairs concern cities garments kingdoms machines patterns 53
To massacre is to investigate lament manifest misunderstand slaughter 54
To be prompt is to be formal frightful hospitable punctual purified 55
Listless means indifferent loathsome malicious merciless presumptuous 56
To lament is to flatter humor injure lend mourn .................. 57
A prologue is a kind of introduction knell prohibition sermon tempest 58
Lifeless means inanimate indefinite infamous undecided untidy .... 59
An impression is a century compass copy globe pasture ........... 60
Crafty means accurate proficient slavish submissive wily .......... 61
Liberality means promotion robbery reproof scandal generosity 62
Jubilant means abrupt abject confused triumphant doleful .......... 63
A bulwark is a hospital hotel protection punishment purchase .... 64
A legacy is an inheritance inscription levy receptacle regulation 65
Maintenance means contention continuance corruption cowardice resource 66
To meditate is to escort gossip ponder transgress withhold ....... 67
Covetous means avaricious bountiful gaudy gray-headed harassed 68
Minimum means the largest least most newest oldest ................ 69
To chastise is to promise publish punish purchase trifle .......... 70
A sequel is something that excels follows interrupts precedes yields 71
Ceseless means boisterous diminished discontented ended incessant 72
Emphatic means forcible frantic incurable pernicious reluctant .... 73
To subvert means to overturn shorten sling sojourn spurn .......... 74
To be infamous is to be doubtful polished shameful sorrowful valuable 75
To be languid is to be courteous domestic doubtful spiritless jolly 76
An associate is an adversary ally antagonist emigrant ensign ..... 77
To be vigilant means to be aloof betrothed betwixt lawless watchful 78
Decisive means conclusive dazzled genuine profane prudent ....... 79
A scullion is a grasshopper gymnasium haycock hedgehog servant 80
Usury has to do with chivalry fiction homage loans manufactures 81
Perspective has to do with drawing expenses mining religion warfare 82
An insurrection is a fugitive rebellion publication punishment hermit 83
A reprote is one who is very cowardly ugly wealthy wicked youthful 84
Candid means illegitimate impeccable imperious incisive ingenious 85

Test 3. Score .........
# TEST 4. ARITHMETIC: COMPUTATION

Get the answers to these examples as quickly as you can without making mistakes. Look carefully at each example to see what you are to do.

<table>
<thead>
<tr>
<th>Begin here.</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add</td>
<td>3 + 2</td>
<td>3 + 4</td>
<td>2</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Subtract</td>
<td></td>
<td></td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

| (6)         | (7)  | (8)  | (9)  | (10) |
| Add         | Subtract | Subtract | Add  |
| 17          | 4     | 7     | 2 × 3 | 16   |
| 2           | 2     | 4     |       | 53   |
|             |       |       |       | 32   |

| (11)        | (12) | (13) | (14) | (15) |
| Subtract    | Subtract | Subtract | Subtract | Multiply |
| 16          | 96    | 13    | 765  | 26   |
| 5           | 25    | 5     | 327  |       |
|             |       |       |       | 2    |

| (16)        | (17) | (18) | (19) | (20) |
| Multiply    | Divide | Divide | Add  |
| 253         | 2      | 4    | 6     |
| 6           | 6      | 8    | 6     |
|             | 2      | 5    | 3     |
|             | 3      | 6    | 4     |

| (21)        | (22) | (23) | (24) | (25) |
| Add         | Multiply | Multiply | Add  |
| 24          | 6389   | 4679   | 2 ÷ 15.8 | 27/6 - 1 = |
| 12 1/2      | 7      | 6 3/8  |       |

Go right on to next page.
<table>
<thead>
<tr>
<th>(26)</th>
<th>(27)</th>
<th>(28)</th>
<th>(29)</th>
<th>(30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[\frac{1}{2} \text{ of } 8 \text{ 2} \text{ 8} =]</td>
<td>[9\frac{3}{4} - 4\frac{1}{2} =]</td>
<td>[\begin{array}{c} 7.9 \ 1 \frac{6}{8} \end{array} ]</td>
<td>[\frac{1}{2} \times 2 =]</td>
<td>[0.45 \div 27.90]</td>
</tr>
</tbody>
</table>

\[\begin{array}{c} 3\frac{1}{2} + 1\frac{1}{2} = \]   | \[\begin{array}{c} 9.72 \\ 21.9 \end{array} \]   | \[\begin{array}{c} 697.5 \\ 18 \end{array} \]   | \[\frac{27}{28} + \frac{6}{7} =\]   |   |

\[\begin{array}{c} 4.40 + 0.0044 + 4400 + .04 = \]   | \[48.76 - 4\frac{9}{10} =\]   | \[\frac{1}{2} + \frac{3}{4} + \frac{5}{6} + \frac{7}{8} =\]   |   |   |

\[27.34 + 2\frac{1}{4} + 89.2 + 4\frac{3}{4} =\]   | \[3\frac{1}{4} \times 5\frac{1}{2} \times 3\frac{1}{2} =\]   | \[1\frac{3}{4} + 25.2 + 4\frac{1}{2} + 48.961 =\]   |   |   |

\[\sqrt{45369} =\]   | \[(4)^2 =\]   | \[\text{Add}\]   | \[\text{Subtract}\]   |   |

\[67.36 + \frac{3}{8} =\]   | \[4 \text{ gals. } 3 \text{ qts. } 1 \text{ pt.}\]   | \[2 \frac{9}{64} =\]   | \[\text{Express as a decimal to three places}\]   |   |

\[\text{Test 4. Number right } \ldots \ldots \times 4 = \text{Score } \ldots \ldots\]
**TEST 5. ARITHMETIC: REASONING**

Find all the answers as quickly as you can.
Write the answers on the dotted lines.
Use the blank sheets of paper to figure on.

Begin here.

1. How many are 3 eggs and 2 eggs?  
   **Answer.**

2. Mary is 7 years old. How old will she be in 3 years?  
   **Answer.**

3. A hen had 9 chicks and 3 of them died. How many were left?  
   **Answer.**

4. Milk costs 8 cents a pint and the milkman is going to raise the price 2 cents. What will it then cost?  
   **Answer.**

5. If you buy a pencil for 4 cents and pay for it with a dime, how much change should you get?  
   **Answer.**

6. How many dimes are there in a dollar?  
   **Answer.**

7. How many eggs are there in 7 nests if each nest has 3 eggs?  
   **Answer.**

8. How many cents will 8 oranges cost at 3 cents each?  
   **Answer.**

9. David earned $3.50 in June, $2.25 in July, and $1.50 in August. How much did he earn in all?  
   **Answer.**

10. Frank bought 3 two-cent postage stamps and 13 one-cent stamps. How much did he pay for all?  
    **Answer.**

11. Five girls buy a present costing 25 cents. How many cents does each pay?  
    **Answer.**

12. If a train goes 60 miles in three hours, how far does it go in one hour?  
    **Answer.**

13. John has saved $3.75. How many dollars more does he need to buy a pony which costs $45.75?  
    **Answer.**

14. A man pays the street-car fare for himself and two friends. If the fare is 7¢, how much change should he receive from a half dollar?  
    **Answer.**

15. A train which was due at 2 P.M. was 3½ hours late. When did it arrive?  
    **Answer.**

16. What is the cost of 10 oranges at 2 for 5 cents?  
    **Answer.**

17. Edward has $1.67 in the bank and takes out 2 quarters, a dime, and a cent. How much does he have left in the bank?  
    **Answer.**

18. What is the cost of a 4½-pound roast at 40 cents a pound?  
    **Answer.**

19. A boy saved 5 cents a day for two weeks, and 10 cents a day for the next four weeks. How much money does he then have?  
    **Answer.**

20. A gallon is equal to 231 cubic inches. How many gallons are there in a tank 6 × 7 × 11 inches?  
    **Answer.**

21. The tax rate in an Eastern city has varied as follows: 1910, 21¢ on each $100; 1911, 17¢ on each $100; 1912, 27¢ on each $100; 1913, 26¢ on each $100; 1914, 34¢ on each $100; 1915, 33¢ on each $100. The highest rate was how many times as great as the lowest?  
    **Answer.**

Go right on to next page.
22 Henry was marked 87 in geography the first month, 91 the second, and 93 the third month. What was his average grade? \textbf{Answer}.

23 If the butcher's scales read one ounce too much on each weighing, how much is a customer overcharged on a pound of steak at 48¢ a pound? \textbf{Answer}.

24 At $1.00 a bushel for potatoes and $30.00 a car for freight, how much will a 400-bushel carload of potatoes cost? \textbf{Answer}.

25 Tom has just 4 weeks' vacation and wishes to spend it in a city which it takes two days to reach by train. How many days can he spend in the city? \textbf{Answer}.

26 If a fence rail is 10 feet long, how many rails will it take to reach a mile? \textbf{Answer}.

27 Sound travels about 1100 ft. a second. If you see the flash of a cannon and 12 seconds later the sound reaches you, how far away is the cannon? \textbf{Answer}.

28 A man had $5000, from which he received 6 per cent income each year. In addition he earned $1500 in business. What was his total income for the year? \textbf{Answer}.

29 Frank and George buy 300 marbles for 50 cents. Frank pays 35 cents and George 15 cents. How many marbles should George receive? \textbf{Answer}.

30 If a watch gains 20 seconds in 24 hours, what fraction of a minute will it gain between noon and 6 P.M.? \textbf{Answer}.

31 The heights of 4 boys in a class are 5 feet 10 inches, 5 feet 9 inches, 5 feet 7 inches, and 5 feet 6 inches. What is the average height? \textbf{Answer}.

32 An article which formerly sold at 12 cents was raised to 18 cents. What per cent was the price advanced? \textbf{Answer}.

33 A broker charges $25 commission on every sale plus 5 per cent on all over $200. What would be his commission on a $500 sale? \textbf{Answer}.

34 If 72 per cent of potatoes is water, how many pounds of solid material are there in a ton of potatoes? \textbf{Answer}.

35 A man invested $1000 in each of 3 different bonds. The first paid 8 per cent dividend and the second 6 per cent, but on the third he lost $5 on each hundred dollars invested. What was his net yearly gain on the three investments? \textbf{Answer}.

36 If the circumference of a circle is 12.5664 feet, what is its diameter? \textbf{Answer}.

37 The regular price of a certain piece of linen is $4 per yard. A remnant 1\frac{1}{4} yards long is offered at $2.50. What per cent reduction is made? \textbf{Answer}.

38 A man six feet tall casts a shadow 8 feet long at 9 A.M. A telephone pole casts a shadow 100 feet long at the same time. How high is the pole? \textbf{Answer}.

39 It costs 43 cents to send a 10-pound parcel post package from New Orleans to Dallas. What will it cost to send an 8-pound package if the cost is 3 cents more on the first pound than on additional pounds? \textbf{Answer}.

40 If the hour hand of a clock is 3 inches long and the minute hand is 4 inches long, how far apart are the tips of the two hands at 9 A.M.? \textbf{Answer}.

\textbf{Test 5. Number right} \times 4 = \textbf{Score}

[13]
TEST 6. NATURE STUDY AND SCIENCE

Samples: The number of cents in a dollar is 200 100 300
Our rain comes from the clouds moon stars
Draw a line under the word that makes the sentence true.

Begin here.

1. Thanksgiving comes in July January November
2. The earth is shaped most like a baseball football pear
3. A sweet-smelling flower is the daisy poppy rose
4. The month before July is May June August
5. The axe is a part of an ax typewriter wagon
6. Alfalfa is a kind of corn fruit hay
7. Bacon comes from the cow hog sheep
8. An animal that builds dams is the alligator beaver turtle
9. Raisins are dried currants gooseberries grapes
10. London is in England Scotland Wales
11. The dahlia is a kind of animal flower fruit
12. The tractor is used in farming mining racing
13. Tarts are a kind of drink pastry vegetable
14. Planes are used chiefly by barbers blacksmiths carpenters
15. Rubber is obtained from animals oil trees
16. The antelope is a kind of deer rabbit wolf
17. The number of quarts in a gallon is 2 4 6
18. A telescope makes things look larger prettier smaller
19. Chop suey is a dish of the Chinese Indians Mexicans
20. A flower that grows from a bulb is the lily marigold poppy
21. The compass is used chiefly by sailors surgeons tailors
22. Serge is a kind of cloth drink wood
23. The article costing the least is coat gloves overcoat
24. The anvil is used by blacksmiths carpenters printers
25. A food requiring many eggs is "angel food" bread marmalade
26. Rye is most like beans corn wheat
27. The cotton gin was invented by Arkwright Watt Whitney
28. Beets are used for making catsup sugar jellies
29. The earth moves completely around the sun in about 7 days 30 days 365 days
30. The most gold is produced in Alaska New York Tennessee
31. The lungs take from the air carbon dioxide nitrogen oxygen
32. The tadpole is the young of the fish frog lizard
33. Most of our anthracite coal comes from Alabama Colorado Pennsylvania
34. Molasses is obtained from grapes honey sugar cane
35. A great clothing-manufacturing state is Massachusetts Oregon Texas
36. A food rich in fats is butter eggs tapioca
37. An important meat-packing city is Chicago New Orleans Seattle
38. Lard comes from butter cattle hogs
39. A food containing considerable oil is rice potatoes walnuts
40. Linen is made from cotton flax hemp
41. The United States exports coffee cotton tea
42. A tree that will grow from cuttings is the oak pine willow
43. Organdie is a kind of cloth marmalade musical instrument
44. The common house fly often lays its eggs in leaves manure water
45. The greatest sugar-exporting country is Brazil Cuba Mexico

Go right on to next page.
TEST 6, CONTINUED

46 The Leghorn is a kind of\si{cow, fowl, goat}................................. 46
47 The panther is most like the\si{cat, dog, wolf}............................... 47
48 Electric lights were invented by\si{Edison, Marconi, Volta}........... 48
49 The most wool is produced in\si{Australia, France, Holland}........... 49
50 Calcutta is a city in\si{China, Egypt, India}.................................. 50
51 Tapioca is chiefly\si{fat, starch, sugar}........................................ 51
52 The largest state in the Union is\si{California, New York, Texas}..... 52
53 The freezing point on the Centigrade thermometer is\si{0°, 32°, 100°}... 53
54 The tooth's enamel is broken down by\si{acids, carbon dioxide, starches}...... 54
55 Air and gasoline are mixed in the\si{accelerator, carburetor, gear-case}..... 55
56 A crop which enriches the soil is\si{clover, potatoes, tobacco}........... 56
57 Distance above sea level is known as\si{altitude, latitude, longitude}...... 57
58 The house fly spreads\si{bubonic plague, typhoid, yellow fever}........ 58
59 A very important product of Minneapolis is\si{automobiles, flour, meat}...... 59
60 A food that has much the same food substance as rice is\si{beans, peas, potatoes}.. 60
61 A gross equals\si{64, 144, 500}.................................................. 61
62 Milk testers were devised by\si{Babcock, Bell, Edison}..................... 62
63 The coarest of these threads is No.\si{40, 60, 80}.................................. 63
64 The differential is a part of an\si{auto, bicycle, typewriter}.............. 64
65 The largest planet is\si{Jupiter, Neptune, Saturn}.......................... 65
66 A plant that can be grafted is the\si{apple tree, lily, potato}.............. 66
67 The normal temperature of the human body is about\si{60°, 98°, 112°}........ 67
68 Alcohol is made from\si{gasoline, grains, oils}............................... 68
69 An avalanche causes destruction by\si{burning, sliding, spouting}......... 69
70 Most automobiles are manufactured in\si{Michigan, New York, Iowa}...... 70
71 The Nile is in\si{Africa, Asia, Europe}........................................ 71
72 A country that imports nearly half its food is\si{England, France, Germany}.. 72
73 Bronchitis resembles most\si{dyspepsia, headaches, sore throat}........ 73
74 A common ingredient of matches is\si{calcium, iodine, phosphorus}......... 74
75 A body that shines by reflected light is the\si{moon, North Star, sun}..... 75
76 Monsoons are a kind of\si{plain, plateau, storm}............................. 76
77 The days are longest in\si{March, July, October}............................ 77
78 The largest amount of corn is shipped from\si{Denver, Omaha, Pittsburgh}... 78
79 Tokyo is a city of\si{China, India, Japan}..................................... 79
80 A place for storing weapons is called an\si{abattoir, arsenal, cafeteria}.... 80
81 A plant that thrives best in dry places is the\si{lichen, lily, mushroom}..... 81
82 The dictaphone is a kind of\si{multigraph, phonograph, typewriter}......... 82
83 The Wyandotte is a kind of\si{fowl, sheep, watermelon}.................... 83
84 Linotypes are used in\si{printing, surveying, weaving}..................... 84
85 An eight-sided figure is called an\si{octagon, scholium, trapezium}........ 85
86 "Pi" is equal to\si{3.1415, 6.666}........................................... 86
87 Croquettes are a kind of\si{food, ornament, weapon}........................ 87
88 A botanist is one who studies\si{animals, minerals, plants}................ 88
89 The technical name for hard coal is\si{anthracite, bituminous, lignite}..... 89
90 Air brakes are used on\si{automobiles, balloons, trains}................... 90
91 Deltas tend to grow\si{larger, smaller, wetter}......................... 91
92 The Angora is a kind of\si{chicken, goat, sheep}............................ 92
93 One of the lightest-known metals is\si{aluminum, tin, zinc}.................. 93
94 The most expensive of these rugs is\si{Axminster, Brussels, Oriental}...... 94
95 Fondant is a kind of\si{candy, meat, salad}.................................. 95

Number right.................................................................
Number wrong........................... + 2 =
Test 6. Score (subtract)....................................................

[15]
TEST 7. HISTORY AND LITERATURE

Draw a line under the word that makes the sentence true.

1. An elf is a kind of animal brownie dragon

2. "The Glass Slipper" reminds us of Ali Baba Cinderella Goldilocks

3. The first President of the United States was Adams Jefferson Washington

4. The shepherd boy who became king was David Saul Solomon

5. Columbus made his first voyage to America in 1492 1620 1776

6. The highest officer of a city is the alderman chief of police mayor

7. Apollo was the god of rivers the sun wind

8. A battle of the Revolution was Bull Run Bunker Hill Tippecanoe

9. The god of mischief was Asgard Loki Mimir

10. Mount Olympus is located in Greece Italy Washington

11. Hiawatha was written by Bryant Longfellow Whittier

12. The Declaration of Independence was signed in 1776 1781 1789

13. A name made famous by Longfellow is Matthew Arnold Admiral Dewey Paul Revere

14. Kings are supposed to rule for 4 years 8 years life

15. "The Children's Hour" was written by Longfellow Riley Stevenson

16. The Quakers came from England France Holland

17. Ulysses captured Troy by hiding in a forest load of hay wooden horse

18. The country which helped America in the Revolution was England France Germany

19. Goliath was slain by David Joseph Samson

20. Thor lost his armor chariot hammer

21. "Uncle Tom's Cabin" was written by Alger Sewell Stowe

22. Louisiana was purchased by Jefferson Madison Polk

23. Peter Pan is the name of a boy dog man

24. The slaves were freed by Jefferson Lincoln Washington

25. The first white man to see the Pacific was Balboa Cabot Vespucci

26. The United States was allied in the Great War with Bulgaria France Turkey

27. "Treasure Island" tells about Long John Micawber Uncas

28. Madame Curie is noted for the discovery of platinum radium pyrite

29. "The Star-Spangled Banner" was written by Alcott Burns Key

30. The earliest of these inventions was railroad stagecoach steamboat

31. Foreigners can obtain the right to vote by habeas corpus naturalization purchase

32. "The Legend of Sleepy Hollow" tells about Ichabod Crane Hiawatha Pinocchio

33. Robert E. Lee surrendered to Grant Sheridan Sherman

34. New York was settled by the Dutch English French

35. Minnehaha means falling leaves laughing waters whispering pines

36. The most important qualification for a voter is generosity intelligence wealth

37. The king who let the cakes burn was Alfred Arthur William

38. Inability to pay debts is called bankruptcy embezzlement vagrancy

39. The messenger of the gods was called Mercury Perseus Vulcan

40. Virginia was settled by the English French Spanish

41. "Oliver Twist" was written by Dickens Scott Thackeray

42. Roger Williams was a colonizer judge merchant

43. Valley Forge relates to the Civil War Revolution War of 1812

44. Sherlock Holmes was a detective sailor thief

45. A man who betrayed his country was Arnold Cornwallis Lee
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of United States Senators from each state is</td>
<td>1 2 4</td>
</tr>
<tr>
<td>“The Man Without a Country” was written by</td>
<td>Cooper, Hawthorne, Hale</td>
</tr>
<tr>
<td>A general in the Civil War was</td>
<td>Lincoln, Sherman, Washington</td>
</tr>
<tr>
<td>The name “Old Ironsides” refers to a man</td>
<td>mountain</td>
</tr>
<tr>
<td>A President who was assassinated was</td>
<td>Garfield, Roosevelt, Taylor</td>
</tr>
<tr>
<td>The British Prime Minister in 1918 was</td>
<td>Lloyd George, Balfour, Asquith</td>
</tr>
<tr>
<td>The Red Cross was founded by</td>
<td>Clara Barton, Jenny Lind, Rockefeller</td>
</tr>
<tr>
<td>Legal authority over a dead man’s estate is given to an administrator</td>
<td>judge, jury</td>
</tr>
<tr>
<td>Barbara Frietchie sympathized with the English South Union</td>
<td></td>
</tr>
<tr>
<td>Grover Cleveland was</td>
<td>a general, an inventor, a President</td>
</tr>
<tr>
<td>The crime which brings the greatest punishment is</td>
<td>larceny, manslaughter, murder</td>
</tr>
<tr>
<td>The chief cause of the Mexican War was</td>
<td>disputed territory, immigration, slavery</td>
</tr>
<tr>
<td>The stork reminds us of</td>
<td>Holland, Italy, Scotland</td>
</tr>
<tr>
<td>Cornwallis surrendered at</td>
<td>Appomattox, Bunker Hill, Yorktown</td>
</tr>
<tr>
<td>“Treasure Island” was written by</td>
<td>Algernon, Defoe, Stevenson</td>
</tr>
<tr>
<td>The “spoil system” refers to</td>
<td>farming, political offices, tariff</td>
</tr>
<tr>
<td>Jesus was betrayed by</td>
<td>Herod, Judas, Pilate</td>
</tr>
<tr>
<td>Louisiana was purchased from the</td>
<td>French, Indians, Spanish</td>
</tr>
<tr>
<td>The son of Abraham was</td>
<td>Isaac, Moses, Solomon</td>
</tr>
<tr>
<td>Lewis and Clark explored</td>
<td>The Great Lakes, The Mississippi Valley, The Northwest</td>
</tr>
<tr>
<td>The number of men in the Light Brigade was</td>
<td>600, 500, 400</td>
</tr>
<tr>
<td>The War of 1812 was fought against</td>
<td>England, Mexico, Spain</td>
</tr>
<tr>
<td>Among the allies of Germany was</td>
<td>Belgium, Bulgaria, Roumania</td>
</tr>
<tr>
<td>One of Robin Hood’s men was</td>
<td>Ivanhoe, Lancelot, Little John</td>
</tr>
<tr>
<td>Each state has the power to</td>
<td>coin money, declare war, establish schools</td>
</tr>
<tr>
<td>A great Scotch poet was</td>
<td>Burns, Chaucer, Milton</td>
</tr>
<tr>
<td>The general who surrendered at Yorktown was</td>
<td>Burgoyne, Cornwallis, Lafayette</td>
</tr>
<tr>
<td>A gnome is a kind of</td>
<td>dwarf, giant, priest</td>
</tr>
<tr>
<td>“Treasure Island” tells about</td>
<td>Black Dog, Fagin, Miss Hazy</td>
</tr>
<tr>
<td>The vessel which overcame the Merrimac was</td>
<td>Monitor, Old Ironsides, Wasp</td>
</tr>
<tr>
<td>A man known for his strength was</td>
<td>Abel, David, Samson</td>
</tr>
<tr>
<td>One who lives in the poorhouse is legally a bankrupt</td>
<td>delinquent, pauper</td>
</tr>
<tr>
<td>“A Tale of Two Cities” tells of the</td>
<td>American Revolution, Civil War, French Revolution</td>
</tr>
<tr>
<td>Ivanhoe is a character from</td>
<td>Dickens, Scott, Wordsworth</td>
</tr>
<tr>
<td>Circe changed the men of Odysseus into</td>
<td>horses, stones, swine</td>
</tr>
<tr>
<td>In 1917 there was a great Revolution in</td>
<td>Germany, Russia, Turkey</td>
</tr>
<tr>
<td>A writer of mystery tales was</td>
<td>Dickens, Poe, Scott</td>
</tr>
<tr>
<td>“Styx” was the name of a</td>
<td>giant, god, river</td>
</tr>
<tr>
<td>A city is most likely to own its</td>
<td>electric lights, gas plant, water system</td>
</tr>
<tr>
<td>The author of “Innocents Abroad” is</td>
<td>Hawthorne, Stevenson, Mark Twain</td>
</tr>
<tr>
<td>The American Revolution was chiefly a dispute over</td>
<td>boundary lines, slavery, taxation</td>
</tr>
<tr>
<td>“The Last of the Mohicans” was</td>
<td>Hiawatha, Mowgli, Uncas</td>
</tr>
<tr>
<td>Wallace Irwin is an actor</td>
<td>baseball player</td>
</tr>
<tr>
<td>Coleridge wrote “Ancient Mariner” “Hiawatha” “Thanatopsis”</td>
<td></td>
</tr>
<tr>
<td>The Chautauqua is a kind of entertainment</td>
<td>museum, music</td>
</tr>
<tr>
<td>A word that means exactly the opposite of joy is</td>
<td>sad, sorrow, sorry</td>
</tr>
<tr>
<td>Marco Polo was a famous</td>
<td>philosopher, traveler, warrior</td>
</tr>
<tr>
<td>“The Charge of the Light Brigade” was written by</td>
<td>Burns, Longfellow, Tennyson</td>
</tr>
<tr>
<td>The Mohammedan Bible is the</td>
<td>Bagavad-gita, Koran, Zend-Avesta</td>
</tr>
<tr>
<td>The singular of “are” is</td>
<td>is, was, were</td>
</tr>
</tbody>
</table>

Number right

Number wrong $\div 2 =$

Test 7. Score (subtract)
TEST 8. LANGUAGE USAGE

Samples

Apples are good.
He told me.

1 I calculate to go soon.
2 Last year uncle gave me a pair of skates.
3 His leg was broken.
4 They have gone to town.
5 He isn't any better than you.
6 Always wash your hands before eating.
7 I have a heap of work to do.
8 We had a delightful time at the party.
9 The earthquake damaged four buildings.
10 I had set there for an hour.
11 Yourself and your guests are invited.
12 I saw him do it.
13 I think dominoes is an interesting game.
14 My father is very mad at me.
15 We had only started till when Joe came.
16 The news are bad today.
17 Where are you going?
18 They fight like demons.
19 I told him to quickly run home.
20 He doesn't know anything.
21 I think you ought to go.
22 I asked him which one he chose.
23 This battle occurred in 1863.
24 He goes to school only on Mondays.
25 The idea that the moon is made of cheese is ridiculous.
26 It is they who should be blamed.
27 He went to prison for his crimes.
28 That fellow is no good.
29 I remember seeing him there.
30 He burst a blood vessel.

Go right on to next page.
TEST 8, CONTINUED

31 He acted the part perfect.
32 He worked with much snap.
33 He sat the vase on the table.
34 Rain has been plenty this season.
35 The prisoner finally admitted he was guilty.
36 I have often ridden a horse.
37 He went in search of his sheep.
38 I have often risen early.
39 The honest person is to be applauded.
40 He is interested in history.
41 He has an appointment with the president.
42 We charged and occupied their trenches.
43 Slavery was destroyed in 1863.
44 His attack on my character made me indignant.
45 One is not qualified to vote at the age of 18.
46 I have often rung this bell.
47 My work is much different this year.
48 He caught nearly a hundred fish.
49 He lay down and went to sleep.
50 All went but I.
51 Charity is when one gives to the poor.
52 It is now evident why he left.
53 Are you sure he shall succeed?
54 Arson means where one sets fire to property.
55 I can hardly endure him.
56 Each man and woman were present.
57 Why cherish a vain hope?
58 I wish John was here.
59 He has no fear; nothing can daunt him.
60 Is that he?

<table>
<thead>
<tr>
<th>Number right</th>
<th>Number wrong</th>
<th>Test 8 Score (subtract)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TEST 9. DICTATION EXERCISE

Test 9. Full score for easier sentences not dictated.
Number right in sentences dictated.

\[ \text{Sum} \times 2 = \text{Score} \]
OTIS GROUP INTELLIGENCE SCALE
Devised by ARTHUR S. OTIS

ADVANCED EXAMINATION: FORM A

Examination Number. Name. 
(First name, initial, and last name)

Age last birthday. years. Birthday. (Month, day)
(Tell in figures)

School. Grade.

City. Date. 19 .
(Month, day, year)

(Do not write below this line.)

Remarks or Further Data

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

Total Score

Norm

IB

PR

Published by World Book Company, Yonkers-on-Hudson, New York, and 2126 Prairie Avenue, Chicago
Copyright, 1918, by Arthur S. Otis. Copyright, 1919, by World Book Company. Copyright in Great Britain. All rights reserved. OTIS: ADV: A-44

To the Examiner: Do not administer this test without first reading carefully the Manual of Directions. The Manual must be ordered extra.
TEST 1

Following Directions

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Sample problem: Write the fifth letter of the alphabet................................. ( E )

Begin here:

1. Do you understand that each letter is to be a capital made like printing and put in the parenthesis after the problem?  If so, write C in the parenthesis................. ( )

2. Will you remember not to ask any questions during the examination?  If so, write Q.................................................... ( )

3. Will you remember not to look toward the paper of any other pupil during the examination?  If so, write L........................................ ( )

4. Will you remember not to turn over your booklet or any page of it at any time unless you are told to?  If so, write B; if not, write N......................... ( )

5. Write the letter O...................................................................... ( )

6. Write the eighth letter of the alphabet.......................................... ( )

7. Write the same letter that you were told to write in the fifth problem ......................................................... ( )

8. Write the letter which follows the third letter of the alphabet................................. ( )

9. Write the letter which the letter L follows in the alphabet......................... ( )

10. If K comes after R in the alphabet, write K; if not, write R........................ ( )

11. Suppose all the even numbered letters in the alphabet (that is, the 2d, 4th, 6th, etc.) were crossed out.  The fifth letter left, not crossed out, would be what letter? ( )

12. Write the letter which follows the letter which comes next after B in the alphabet......................... ( )

13. If E and F appear together in the alphabet, write E, unless T and Z also appear together in the alphabet, in which case write T instead.......................... ( )

14. Write the letter which is the third letter to the right of the letter which is midway between K and O......................................................... ( )

15. Suppose that the first and second letters of the alphabet were interchanged, also the third and fourth, the fifth and sixth, etc.  Write the letter which would then be the 14th letter in the alphabet......................................................... ( )

16. A certain letter is the second letter to the left of another letter.  This other letter is the fifth letter to the right of Q.  What is the “certain letter” first mentioned? ( )

17. A certain letter is the fourth letter to the right of another letter.  This other letter is midway between two other letters.  One of these last two letters is next after E in the alphabet and the other is just before K in the alphabet.  What is the “certain letter” first mentioned? ( )

18. If the letters in the word IF appear in the same order that they do in the alphabet and if the same is true of the letters in the word AN, write the letter Z.  But if this is true of only one of these words, write the last letter of that word................................. ( )

19. Find the letter which, in this sentence, appears a second time nearest the beginning.  Write it, using a capital......................................................... ( )

20. Find the two letters in the word AFTER which have just as many letters between them in the alphabet as in the word.  Write the one of these two letters that comes first in the alphabet......................................................... ( )

Score. ...............
TEST 2

Opposites

Samples:
- up (short, down, small, low, young)
- hot (warm, ice, dark, cold, fire)

Directions. Look at the first word on each line, think what word means exactly the opposite of it, find that word among the five words in parenthesis on that line and draw a line under it.

Begin here:

1. east (north, west, south, pole, equator)
2. yes (may-be, wrong, no, sure, nothing)
3. top (bottom, side, cover, inside, feet)
4. before (late, now, soon, when, after)
5. difficult (hard, quick, soft, easy, common)
6. friend (brother, acquaintance, enemy, wife, stranger)
7. succeed (win, decline, fail, accede, try)
8. command (officer, shout, order, obey, soldier)
9. beautiful (crooked, handsome, old, ugly, dirty)
10. brave (painful, fear, weak, stingy, cowardly)
11. pride (sorrow, humility, miserable, conceit, proud)
12. expand (burst, smaller, contract, vanish, stay)
13. genuine (coarse, counterfeit, adulterated, worthless, impure)
14. help (person, work, push, give, hinder)
15. love (like, anger, hate, strange, lover)
16. graceful (rough, homely, miserable, awkward, stout)
17. extravagant (miser, humble, economical, poor, wasteful)
18. cause (reason, because, origin, effect, why)
19. abolish (alter, create, continue, destroy, change)
20. loyal (treacherous, enemy, thief, coward, jealous)
21. always (sometimes, often, occasionally, seldom, never)
22. fickle (silly, constant, stationary, solid, sober)
23. therefore (since, why, may-be, there, cause)
24. however (nevertheless, moreover, whether, even, never)
25. unless (and, therefore, however, also, if)

Score
Disarranged Sentences

Samples:

1. men money for work. ........................................ (true false)
2. uphill rivers flow all. ................................. (true false)
3. ocean waves the has ................................ (true false)

DIRECTIONS. The words on each line below make one sentence if put in order. If the sentence the words would make is true, underline the word true at the side of the page. If the sentence they would make is false, underline the word false.

Begin here:

1. eat grass cows ........................................ (true false) 1
2. sail ocean ships the on ................................ (true false) 2
3. sun morning the the in sets ................................ (true false) 3
4. trees birds nests the in build ................................ (true false) 4
5. mountains live the in whales ................................ (true false) 5
6. comes Christmas a but year once ................................ (true false) 6
7. float iron water on will ................................ (true false) 7
8. days there in are week seven a ................................ (true false) 8
9. usually are of made tables wood ................................ (true false) 9
10. has short very a a neck giraffe ................................ (true false) 10
11. cream ice children like most .......................... (true false) 11
12. milk bees flowers gather the from .......................... (true false) 12
13. obtained sea sugar from is water .......................... (true false) 13
14. fuel wood are coal and for burned .......................... (true false) 14
15. substances light lead gold and are very .................. (true false) 15
16. rivers lakes and many desert has a .......................... (true false) 16
17. moon earth the from feet twenty the is .......................... (true false) 17
18. hump camel has a a his a back on .......................... (true false) 18
19. grow and apples ground oranges the in .......................... (true false) 19
20. music fond people many are of .......................... (true false) 20
21. and eat good gold silver to are .......................... (true false) 21
22. clouds rain sky from comes the the in .......................... (true false) 22
23. mile a a a travel snail in can minute .......................... (true false) 23
24. automobile pocket man his keeps a his in .......................... (true false) 24
25. vote persons twenty-one cannot under .......................... (true false) 25

Right ............ Wrong ............ Score ............
DIRECTIONS. Read each proverb, find the statement that explains it, and put the number of that statement in the parenthesis before the proverb.

Proverbs (Group 1)

1. Make hay while the sun shines.
2. A drowning man will grasp at straws.
3. A stitch in time saves nine.
4. Rats desert a sinking ship.
5. In a calm sea every man is a pilot.
6. Destroy the lion while it is young.
7. He who would eat the kernel must crack the nut.
8. One swallow does not make a summer.
9. People who live in glass houses must not throw stones.
10. A mouse must not think to cast a shadow like an elephant.

Statements to Explain Proverbs in Group 1

1. It pays to attend to troubles before they get worse.
2. Leadership is easy when all goes well.
3. Make the best of your opportunities.
4. Those who would reap rewards must work for them.
5. It pays to do only one thing at a time.
6. Desperate people cling to absurd hopes.
7. False friends flee from us in disaster.
8. Weed out bad habits before they are too firmly established.
9. It is best to be silent when there is nothing to say.
10. Those who have faults should not criticize others.
11. Do not attempt the impossible.
12. A single sign is not convincing.

Proverbs (Group 2)

1. Every rose has its thorn.
2. A tree is known by its fruits.
3. All is not gold that glitters.
4. Where there is much smoke there must be some fire.
5. No wind can do him good who steers for no port.
6. Plant the crab tree where you will, it will not bear sweet apples.
7. A bird in the hand is worth two in the bush.
8. Too many cooks spoil the broth.
9. Meddle not with dirt — some of it will stick to you.
10. It is a long road that has no turn.

Statements to Explain Proverbs in Group 2

1. Environment will not change one's nature.
2. There is no happiness without its pain or sorrow.
3. Appearances are often deceptive.
4. It is better to be content with little than to gamble for more.
5. One cannot have the same luck forever.
6. No object can be attained without some sacrifice.
7. Deeds show the man.
8. We cannot help those who have no object in life.
9. Suspicions usually have some basis.
10. Association with evil is sure to leave its effect.
11. Who undertakes too much accomplishes little.
12. Division of responsibility brings poor results.

Score: ...............
TEST 5

Arithmetic

DIRECTIONS. Place the answer to each problem in the parenthesis after the problem. Do any figuring you wish on the margin of the page.

1. If a boy had 10 cents and earned 5 cents, how much money did he have then? ...................................................... ( ) cents 1

2. At 4 cents each, how much will 12 pencils cost? ......................... ( ) cents 2

3. If a man had $25 and spent $10, how much money did he have left? ... ( ) dollars 3

4. At 6 cents each, how many pencils can be bought for 48 cents? ....... ( ) pencils 4

5. A boy spent 20 cents and then earned 30 cents. How much more money did he have than at first? .................................. ( ) cents 5

6. How far can a train go in 5 hours at the rate of 40 miles per hour? . . ( ) miles 6

7. How long will it take a glacier to move 1000 feet at the rate of 100 feet a year? ......................................................... ( ) years 7

8. If 2½ yards of cloth cost 20 cents, what will 10 yards cost? ............ ( ) cents 8

9. If 2 pencils cost 5 cents, how many pencils can be bought for 50 cents? ( ) pencils 9

10. If a man walks east from his home 7 blocks and then walks west 4 blocks, how far is he from his home? ........................................ ( ) blocks 10

11. If a boy can run at the rate of 5 feet in ½ of a second, how far can he run in 10 seconds? .................................................. ( ) feet 11

12. A ship has provisions enough to last a crew of 20 men 50 days. How long would they last a crew of 40 men? ......................... ( ) days 12

13. One schoolroom has 7 rows of seats with 8 seats in each row, and another schoolroom has 6 rows of seats with 9 seats in each row. How many more seats does one room have than the other? ( ) seats 13

14. If 10 boxes full of oranges weigh 500 pounds, and each box when empty weighs 5 pounds, what do all the oranges weigh? ............ ( ) pounds 14

15. Town X is 30 miles north of Town Y. Town Y is 15 miles north of Town Z. How far is Town Z from Town X? .......................... ( ) miles 15

16. If 3½ yards of cloth cost 70 cents, what will 2½ yards cost? .......... ( ) cents 16

17. If a strip of cloth 36 inches long will shrink to 33 inches when washed, how long will a 48-inch strip be after shrinking? .............. ( ) inches 17

18. If Frank can ride a bicycle 300 feet while George runs 200 feet, how far can Frank ride while George runs 300 feet? .................. ( ) feet 18

19. A hotel serves a mixture of 3 parts cream and 2 parts milk. How many pints of cream will it take to make 25 pints of the mixture? ( ) pints 19

20. If a wire 20 inches long is to be cut so that one piece is ¾ as long as the other piece, how long must the longer piece be? .............. ( ) inches 20

Score .................
DIRECTIONS. Each problem asks a question that is answered by a number. Write the answer to each problem in the parenthesis after the statement of the problem.

Sample problem:

Look at Fig. I. What number is in the circle but not in the rectangle? .......... ( 1 )

1. What number in Fig. I is in the rectangle but not in the circle? .................. ( )
2. What number in Fig. I is in both the rectangle and the circle? ................. ( )
3. Look at Fig. II (at the right). What number is in the rectangle but not in the circle nor in the triangle? ........................................... ( )
4. What number in Fig. II is in the rectangle and in the triangle but not in the circle? (The remaining questions all refer to Fig. II.)
5. What number is in the circle and in the rectangle and in the triangle?........ ( )
6. What is the smallest number that is in the triangle but not in the circle nor in the rectangle? ...................................................... ( )
7. What is the largest number that is in the circle but not in the triangle nor in the rectangle? ...................................................... ( )
8. Write the number that is in the lowest space that is in the triangle and in the circle but not in the rectangle ............................................. ( )
9. Find the geometrical figure (circle, triangle, or rectangle) that has the least number of spaces in it. Write that number of spaces ............................................. ( )
10. How many spaces are there each of which is in all three geometric figures? .......... ( )
11. How many spaces are there each of which is in one and only one geometric figure? ( )
12. How many spaces are there each of which is in two and only two geometric figures? ( )
13. We may say that space 12 is like space 3 because they are both in the circle and triangle but not in the rectangle. Any space is like another which is in exactly the same geometrical figures. Write the number of the space which is like space 6 .......... ( )
14. Write the number of the space which is like space 1 ............................................. ( )
15. How many other spaces are there like space 9? ............................................. ( )
16. There is no other space like space 5, so we may call space 5 unique (yüneeek). Any space is unique which has no other space like it. Examine spaces 8, 9, 10, 11, 12, and 13 in order until you find another unique space. Write its number .......... ( )
17. How many unique spaces are there in Fig. II? ............................................. ( )
18. What is the greatest number of unique spaces which it is possible to make by overlapping a circle, triangle, and rectangle? (You may draw any figures you wish on the margin of this page) ............................................. ( )
19. Also what is the least number of unique spaces possible? ............................................. ( )
20. What is the greatest number of spaces which it is possible to make by overlapping a circle, triangle, and rectangle? ............................................. ( )

Score ............
Analogies

finger : hand — toe : (? ) ......... foot , knee , arm , shoe , nail

clothes : man — fur : (?) ........ coat , animal , hair , skin , cloth

tall : short — fat : (?) ........ man , wide , thin , boy , heavy

DIRECTIONS. The first sample means: Finger is to hand as toe is to what? Underline the word on each line that should go in the parenthesis in place of the question mark.

Begin here:

1. hand : arm — foot : (?) ............... leg , toe , finger , wrist , elbow ............. 1
2. peeling : banana — shell : (?) ........ skin , orange , egg , juice , ripe ............ 2
3. wool : sheep — feathers : (?) ........ pillow , rabbit , bird , goat , bed ............ 3
4. coal : locomotive — (?) : automobile .... motorcycle , smoke , wheels , gasoline , horn 4
5. man : woman — brother : (?) ........ daughter , sister , boy , mother , son ........... 5
6. automobile : wagon — motorcycle : (?) .. walking , horse , buggy , train , bicycle .... 6
7. hospital : the sick — (?) : criminals .. doctor , asylum , judge , prison , sentence .. 7
8. hat : head — thimble : (?) .............. finger , needle , thread , hand , sewing .... 8
9. captain : ship — mayor : (?) ........... state , council , city , ship , boss ........ 9
10. better : good — worse : (?) ............ very good , medium , bad , much worse , best 10
11. grass : cattle — bread : (?) ............ butter , flour , milk , man , horses ......... 11
12. large : object — loud : (?) ............ soft , small , heavy , weight , sound ....... 12
13. king : kingdom — president : (?) ........ vice president , senate , republic , queen , democrat 13
14. revolver : man — (?) : bee ............. wings , honey , flying , wax , sting ....... 14
15. egg : bird — (?) : plant ............... seed , shell , leaf , root , feathers ........ 15
16. education : ignorance — (?) : poverty ... laziness , school , wealth , charity , teacher . 16
17. circle : square — sphere : (?) ......... circumference , cube , round , corners , ball 17
18. point : line — line : (?) ............... surface , pencil , dot , curve , solid ....... 18
19. sanitation : disease — (?) : accident .. doctor , hospital , bandage , cleanliness , care 19
20. ordinary : exceptional — many : (?) ... all , none , few , common , more ........... 20
21. sunlight : darkness — (?) : stillness .... quiet , sound , dark , loud , moonlight .... 21
22. peninsula : land — (?) : ocean ........ river , lake , cape , gulf , water ........ 22
23. ellipse : circle — (?) : square ........... cube , curve , oval , circle , diamond .... 23
24. violence : anger — (?) : love .......... caressing , hate , temper , hope , happiness 24
25. evolution : revolution — crawl : (?) .. baby , floor , stand , run , hands and knees 25

Score .............
TEST 8

Similarities Test

Samples: hat, collar, glove, hand, cane, head, shoe, house, rose, daisy, violet, bush, red, plant, bed, pansy, desk, bed, chair, book, table, floor, pencil, coat

DIRECTIONS. Find the way in which the first three things on a line are alike. Then look at the five other things on the same line and draw a line under the one that is most like the first three.

1. red, white, green, rose, paper, grass, soft, blue
2. apple, peach, pear, seed, tree, plum, juice, peel
3. pan, bowl, basket, pail, handle, knife, fork, spoon
4. snake, cow, sparrow, tree, doll, pig, feather, skin
5. ship, bicycle, carriage, sail, automobile, wheel, ocean, harness
6. cannon ball, wire, penny, dollar bill, bone, string, pencil, key
7. president, captain, general, ship, army, king, republic, soldier
8. book, teacher, newspaper, pencil, magazine, ink, card, box
9. ax, knife, shears, hammer, razor, hoe, rake, fork
10. ivory, snow, milk, butter, rain, cold, cotton, water
11. day, say, gay, night, said, joy, happy, lay
12. nut, turnip, potato, shell, tree, bush, milk, apple
13. strong, bad, fast, and, man, soon, round, come
14. generous, kind, honest, strong, selfish, wise, loyal, rich
15. joy, anger, fear, habit, memory, hate, life, hearing

Continue below in the same way.

Sample:

Score: 

16. 

17. 

18. 

19. 

20.
Narrative Completion

DIRECTIONS. For each numbered blank in the story, choose the best word of the three in the list having the same number as the blank. Underline the word you choose. You may write these words in the blank spaces if you wish, but only the underlining counts. Do nothing about the blanks that are not numbered.

The Reward of Kindness

Once upon a time there was a man who lived in a street. As he was roaming about, he stepped on a thorn and it stuck in his back. In great pain he limped out of the street in search of some one who would pull the thorn out of his foot.

At last he saw a shepherd and went up to him as if to say, "Pull this thorn out of my foot." The shepherd saw that the man was so glad to see the lion suffer that he forgot to be frightened. Very gently he pulled the thorn out of the lion's foot. The shepherd was so grateful that he went away without thanking him.

Not long after, the shepherd was blamed for a cruel deed which he had not done. The shepherd said: "He must die. Throw him into the lion's den." So the king's men killed the shepherd and put him into the lion's den with a great many other cruel men. It was the very man near the forest. And lo! Instead of harming the shepherd, the lion only licked his hand.

The shepherd was amazed. He explained how he had explained his power over the people. Then the shepherd explained to the king his deed. Let him go," said the shepherd to the king. This man did not chiefly harm men. He explained harm to him of other cruel men. Have you heard this story before?

Score

Underline words here

1. time place man 1
2. man lion dog 2
3. street garden forest 3
4. tack thorn rock 4
5. back hand foot 5
6. came limped ran 6
7. shepherd hunter woodsman 7
8. glad sorry anxious 8
9. gently nicely suddenly 9
10. angry hungry grateful 10
11. hand sheep dog 11
12. eating thanking harming 12
13. hunter king people 13
14. must may will 14
15. man shout lion 15
16. fighting killing helping 16
17. lion shepherd king 17
18. explain give keep 18
19. softened relieved satisfied 19
20. hunger anger suffering 20
21. king people men 21
22. cruel kind good 22
23. dog lion shepherd 23
24. knew accused hurt 24
25. many other cruel 25

Score
Memory

DIRECTIONS. Read each question and if the right answer, according to the story, is yes, draw a line under the word yes. If the right answer is no, draw a line under the word no. But if you do not know the right answer, because the story didn't say, draw a line under the words didn't say.

Samples:
Was the king's daughter sixteen years old?..................................................(yes no didn't say)
Was she ugly?.........................................................................................(yes no didn't say)

Begin here:
1. Was the story about a king?.................................................................(yes no didn't say)

2. Did the king fond of hearing stories?..............................................................(yes no didn't say)

3. Did he offer all his kingdom also?.................................................................(yes no didn't say)

4. Did he say, "but if he fails he shall be cast into prison"?.................................(yes no didn't say)

5. Was the king's daughter pretty?.................................................................(yes no didn't say)

6. Did she love stories, too?..............................................................................(yes no didn't say)

7. Did the story say that after a long time a young man came and offered to tell the king a story?.................................................................(yes no didn't say)

8. Did the first man's story last a week?.............................................................(yes no didn't say)

9. Was the first man's head cut off?.................................................................(yes no didn't say)

10. Did the king then order another man to tell him a story?............................(yes no didn't say)

11. Did each man's story last longer than that of the one before?...........................(yes no didn't say)

12. Did he offer all his kingdom also?.................................................................(yes no didn't say)

13. Did he offer all his kingdom also?.................................................................(yes no didn't say)

14. Did the king beg the young man not to try?..................................................(yes no didn't say)

15. Was the king's daughter afraid he would fail?.................................................(yes no didn't say)

16. Did she love him and so not want to see him killed?........................................(yes no didn't say)

17. Did the young man tell the princess to have no fear?.....................................(yes no didn't say)

18. According to the young man's story, did a rich man order a huge granary built?........................................................................................................(yes no didn't say)

19. Did he have it filled with oats to the very tip-top?.........................................(yes no didn't say)

20. Was a very small hole left between the bricks near the ground?..................(yes no didn't say)

21. Was the hole just big enough to let one little ant through?............................(yes no didn't say)

22. Did the young man say that one day a little ant went in and carried off a grain of wheat?...........................................................................(yes no didn't say)

23. Did he say that the next day another little ant went in and carried off another grain of wheat?.................................................................(yes no didn't say)

24. Did the king plead with the young man to tell him what happened after that?.................................................................................................(yes no didn't say)

25. Did the young man say, "Why, after that the ants just kept on carrying off the wheat"?...................................................................................(yes no didn't say)

26. Did the king finally say, "Man, man, your story will last forever"?....................(yes no didn't say)

27. Did he say, "Take my daughter and half my kingdom and don't speak to me again"?...................................................................................(yes no didn't say)

28. Did the young man marry the princess?..........................................................(yes no didn't say)

29. Did the king ever want to hear another story?..................................................(yes no didn't say)

30. Was the name of this story, "The story that had no end"?.................................(yes no didn't say)

Have you heard this story before?.................................................................(yes no)

Score: .................