THE RELATION OF GRADES MADE IN COLLEGE
BY TWENTY-SEVEN TEACHERS
AND THEIR SUCCESS
IN TEACHING

by

Andrew Franklin Senter

Bachelor of Science in Education
State Teachers College
Emporia, Kansas

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Approved by:

[Signatures]

Instructor in charge
Head or Chairman of Dept.

May 1932
(Date)
The author gratefully acknowledges his indebtedness to the following: The schoolmen who assisted in validating the rating scale; the helpers who gave generously of their time in the work of rating the teachers; the teachers in the Ottawa Schools who so willingly cooperated in working out the problem; and J. W. Twente, Professor of Education, whose counsel and suggestions were most valuable throughout the progress of the study.
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<td>BIBLIOGRAPHY</td>
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</tbody>
</table>
One of the important functions of Superintendents of Schools and Boards of Education is the selection of teachers for the public schools.

The criteria used to form judgments of the fitness or desirability of candidates for teaching positions are varied. Whatever standards or measures may be taken into account in the process, the element of training has almost universal consideration. The number and nature of the courses pursued in colleges, and the candidate's achievement in these courses are given more or less careful inspection. The evidence of a prospective teacher's scholarship or achievement in courses is almost without exception found in the marks or grades given by college teachers.

No one who supervises teachers, questions that scholarship is a factor having much to do with a teacher's success. That one cannot teach satisfactorily what he does not know is axiomatic. However, in the minds of many who work with teachers, the value of college marks as valid evidence in predicting or measuring a teacher's success in the school room is subject to doubt. An authoritative determination of the validity of such evidence would be most helpful to those who are confronted with the task of selecting teachers.

Satisfactory answers to the following and similar questions would render valuable service to administrative officials. Are the grades given in college adequate measures of scholarship? What credit should be given to college marks in the selection of teachers? Do persons who received high grades in college, as a rule make better teachers than those who received low grades?
CHAPTER I

The Problem.

The desire to ascertain, if possible, some information that might point the way to a solution of one or more of the above problems, prompted this brief study. This effort is an attempt to discover the relation, if any, the grades or marks received by individuals in college, have to the success of these persons in teaching.

At the outset, the meaning of success in teaching and ways of measuring it arise.

The term, success in teaching, as used in this discussion comprehends those outcomes of the teaching process that result in socially approved ideals of conduct, useful knowledge, practical skill, and power. In other words, success in teaching means the development of the ability in pupils to make proper adjustments to surroundings.

The criteria used to determine or measure success are two in number. The first is a rating scale including (1) certain general qualities of efficiency and (2) the ability to develop and maintain a proper school morale. The second criterion is the actual gains in achievement made by pupils in academic subjects measured by the Revised Stanford Achievement Tests. Form V was given near the opening and Form W, near the close of the school year.

Studies in the Field.

So far as the author of this study was able to discover, comparatively few studies have been attempted in this specific field. Scattered through the literature of the teaching profession are records of investigations made to ascertain the correlation of academic achievement and success in teaching.

Some attempts have been made in teacher training institutions to find the relation of the grades received in academic subjects and the success of student teachers in practice teaching. The study of the grades and teaching success of 590 graduates of the Northern State Teachers College at Marquette, Michigan made by H. J. Anderson is significant and comprehensive.

Much attention has been given to the subject of
teaching measurement. Many rating scales have been developed and applied with varying degrees of success. Educational literature contains a large number of meritorious discussions on the advantages and disadvantages of judgment scales as devices for measuring teachers success. Many of these scales have had wide use in attempting to develop a scheme or plan that would give accurate information about teachers and their teaching.

Not-with-standing the development and extensive use of rating scales, in the studies investigated in the field of this thesis, the use of any satisfactory device for measuring teaching success seems to be lacking.

The Problem Re-stated.

In order that the problem may be given definite limits and the treatment made specific, a restatement in the following form is presented. Does any relation exist between the grades or marks received in college by twenty-seven teachers in grade levels, three to eight inclusive, in the city schools of Ottawa, Kansas, and their success in teaching as measured by the following criteria: (1) gains made by the pupils of these teachers in academic subjects determined by the difference in composite scores made on the Revised Stanford Achievement Tests, and (2) the composite scores of efficiency of these teachers, determined by three raters on a validated judgment rating scale?
CHAPTER II

Collection and Adjustment of Data.

(a) Teachers Marks.

The college marks of these teachers were secured in various ways. A number were obtained by visiting the office of the State Board of Education, and copying from the transcripts sent by colleges and universities for the purpose of certification. Other grades were copied from the records of the registrar in the State Teachers College at Emporia, and others were secured through correspondence with registrars of colleges in and out of the state. These grades were expressed in different symbols: Some were given in percents, 90, 80, 70, etc.; others by letters, A, B, C, etc., and others by figures, 1, 2, 3, etc.

For the convenience of comparison, it was necessary to reduce these symbols to some common basis. Since the measures of success were given numerical values, each college mark was given representation in percent. The following basis was used: grades of A or 1 were given a value ranging from 90 to 100; of B or 2, from 80 to 89; of C or 3, from 70 to 79; of D or 4, 60 to 69. The mid-point of each group of values was assigned to each straight grade. Plus grades were given values 3 points above the mid-point grade, and minus grades, 3 points below the mid-point grade. Illustration: A grade of "A" was given a value of 95; an "A+" grade, a value of 98; an "A-" grade a value of 92, etc.

The college grade in each course taken by each teacher was thus given a numerical value. The several grades for each teacher were then averaged. The averages were used as a basis for ranking. (A sample record is placed in the appendix.)
### TABLE I

Average of College Grades for each Teacher Included in this Study.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Average of College Grades.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93.84</td>
</tr>
<tr>
<td>B</td>
<td>92.56</td>
</tr>
<tr>
<td>C</td>
<td>91.08</td>
</tr>
<tr>
<td>D</td>
<td>90.84</td>
</tr>
<tr>
<td>E</td>
<td>89.05</td>
</tr>
<tr>
<td>F</td>
<td>88.2</td>
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<td>G</td>
<td>88.15</td>
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<td>H</td>
<td>87.06</td>
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<td>I</td>
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<td>J</td>
<td>86.07</td>
</tr>
<tr>
<td>K</td>
<td>85.97</td>
</tr>
<tr>
<td>L</td>
<td>85.71</td>
</tr>
<tr>
<td>M</td>
<td>85.66</td>
</tr>
<tr>
<td>N</td>
<td>85.31</td>
</tr>
<tr>
<td>O</td>
<td>83.71</td>
</tr>
<tr>
<td>P</td>
<td>83.09</td>
</tr>
<tr>
<td>Q</td>
<td>82.9</td>
</tr>
<tr>
<td>R</td>
<td>82.43</td>
</tr>
<tr>
<td>S</td>
<td>82.45</td>
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<tr>
<td>T</td>
<td>81.64</td>
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<tr>
<td>U</td>
<td>81.55</td>
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<tr>
<td>V</td>
<td>80.4</td>
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<td>W</td>
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<td>77.64</td>
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<tr>
<td>Y</td>
<td>77.41</td>
</tr>
<tr>
<td>Z</td>
<td>76.87</td>
</tr>
<tr>
<td>A. a.</td>
<td>76.81</td>
</tr>
</tbody>
</table>

(b) **Rating Scales.**

Description of scales. (A copy of each scale is placed in the appendix.) The rating scales are based upon two contentions: (1) That certain general qualities of efficiency are necessary to success in teaching, and (2) that if, as some eminent psychologists maintain, learning is directly proportional to the degree of satisfaction a pupil secures in doing his work, the development and maintenance of a proper school morale is essential to the success of a teacher. An examination of the scales will show two main divisions, A. General Qualities of Efficiency, and B. The Development and Maintenance of School Morale.

The qualities or characteristics necessary to measure each quality are arranged under each main division. (See Scales in appendix.)
Since the scores made on the judgment scale are to be compared with averages of marks representing measures of scholarship, the element of scholarship is omitted from the scales.

Provision is made for rating teachers upon fifty qualities. The rating is simplified so that the one who does the rating has only to place a check in one of the five blocks placed at the right of each quality. Block 1 indicates a very high score; block 2, the next highest; block 3, the medium or average score; block 5, the lowest score. At the close of the scale, a summary of the number of checks in each set of blocks 1, 2, 3, 4 and 5 is made.

Under each quality are placed questions for the purpose of definition and guidance of the person who does the rating.

Validation: To ascertain whether, in the opinion of a number of competent judges, the scale would measure the success of teachers, and could be administered by superintendents, principals, and supervisors of the type usually found in our schools; scale (A) was submitted to thirty-one persons in Kansas and other states who have been or are in positions that require them to estimate in some degree the efficiency of teachers. These included 1 high school principal, 18 superintendents in cities of 4,000 and above; 3 heads of Departments of Education in College and Universities; 3 directors of training schools in Teachers Colleges; 4 professors in College Departments of Education; and 2 Secretaries of Appointment Bureaus in Colleges and Universities.

The following questionnaire, accompanied by a letter and a copy of scale A, was sent to each of the above. (A copy of each may be found in the appendix.)

In your opinion:

(a) Would this scale in the hands of principals and superintendents of the type usually found in our schools give a measure of a teacher's success?
(b) Are there any unnecessary factors included?
(c) What vital factors or qualities other than scholarship have been omitted?
(d) Would this scale be difficult to administer?
(e) Wherein is the weakest point in the scale?
Twenty-seven responses were received. (A complete summary of these replies may be found in appendix.)

To question (a)
20 responded "yes".
2 said it would be helpful.
2 replied the success of the scale depended on the one doing the rating.
1 thought it would be better than mere judgment.
1 said it would make the judgment of a number more reliable.
1 said it would be doubtful.

To question (b)
18 responded "no".
3 thought there was too much overlapping or duplication.
1 said the element of cooperation should have more consideration.
5 did not respond to this question.

To question (c)
12 considered no vital factors had been omitted.
2 said results attained should be considered.
3 thought professional interest or spirit should be included.
2 thought moral character should have more consideration.
1 thought resourcefulness should be included.
1 said participation in community affairs should have a place.
1 said meeting financial obligations was essential.
5 gave no response to this question.

To question (d)
12 said it would be difficult to administer.
14 said it would not be difficult to administer.
1 made no response to this question.

Since responses to question (e) are not particularly important to this study, they are omitted here. (They are included in Table I in the appendix.)

The responses to question (c) indicated a number of important factors or elements that should be included in a judgment rating scale. Many of these elements seemed so vital that a revision of scale A was made. The six point scale used in Scale A, was changed to a five point scale. Provision for estimating the teacher's attitude toward the community was provided in item (i) on page 6. Professional interest was placed in item (k) on page 2. Meeting financial obligations was given a place in item (i) page 2. Resourcefulness was included in item (e) on page 5.

It will be observed that the revised judgment scale B was made to comprehend most of the elements, not included
in Scale A, but considered valuable in measuring the success of a teacher by some of those responding to the questionnaire.

Since, in the opinion of a large majority of the responses, the judgment scale would measure, if properly administered, the success of a teacher, it was considered sufficiently valid to justify its use as one of the determining factors of success.

**Teachers Rated: Scores and Averages Computed.**

It is generally agreed that in situations in which the subjective element enters, a composite of the judgments of, at least three, competent judges gives a more accurate score. In this study the superintendent of schools designated as Rater #1; a graduate student of education, experienced in working with teachers, designated as Rater #2; and the principal of each teacher, designated as Rater #3, made the ratings.

The ratings were made after frequent and extended visits to the class rooms of the teachers and after careful inquiry of the people of the community, concerning each teacher. In most cases, the acquaintance of the principals and superintendent with the work of the teacher in the school system extended through several years.

When the ratings were completed, the sums of the checks found in blocks 1, 2, 3, 4, 5 respectively were obtained. To reduce these ratings to some numerical number for comparison, it was necessary to assign a value to the checks in each block. The following values were used: block 1, 5; block 2, 4; block 3, 3; block 2, 2; and block 5, 1.

If the highest rating on every quality in the scale were given, the total score would be 250.

Scores for each teacher by each of the raters and the average score are shown in Table II.
<table>
<thead>
<tr>
<th></th>
<th>Rater # 1</th>
<th>Rater # 2</th>
<th>Rater # 3</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>173</td>
<td>147</td>
<td>231</td>
<td>183.6</td>
</tr>
<tr>
<td>B</td>
<td>189</td>
<td>176</td>
<td>194</td>
<td>193.8</td>
</tr>
<tr>
<td>C</td>
<td>159</td>
<td>144</td>
<td>225</td>
<td>176.0</td>
</tr>
<tr>
<td>D</td>
<td>207</td>
<td>196</td>
<td>190</td>
<td>197.6</td>
</tr>
<tr>
<td>E</td>
<td>185</td>
<td>156</td>
<td>163</td>
<td>168.0</td>
</tr>
<tr>
<td>F</td>
<td>193</td>
<td>186</td>
<td>178</td>
<td>185.6</td>
</tr>
<tr>
<td>G</td>
<td>208</td>
<td>187</td>
<td>245</td>
<td>213.3</td>
</tr>
<tr>
<td>H</td>
<td>161</td>
<td>147</td>
<td>217</td>
<td>175.0</td>
</tr>
<tr>
<td>I</td>
<td>187</td>
<td>155</td>
<td>240</td>
<td>214.0</td>
</tr>
<tr>
<td>J</td>
<td>171</td>
<td>176</td>
<td>224</td>
<td>190.3</td>
</tr>
<tr>
<td>K</td>
<td>162</td>
<td>128</td>
<td>227</td>
<td>172.3</td>
</tr>
<tr>
<td>L</td>
<td>156</td>
<td>166</td>
<td>144</td>
<td>155.3</td>
</tr>
<tr>
<td>M</td>
<td>194</td>
<td>184</td>
<td>223</td>
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<tr>
<td>N</td>
<td>189</td>
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</tr>
<tr>
<td>O</td>
<td>192</td>
<td>209</td>
<td>205</td>
<td>202.0</td>
</tr>
<tr>
<td>P</td>
<td>175</td>
<td>187</td>
<td>213</td>
<td>191.6</td>
</tr>
<tr>
<td>Q</td>
<td>219</td>
<td>194</td>
<td>222</td>
<td>211.6</td>
</tr>
<tr>
<td>R</td>
<td>172</td>
<td>148</td>
<td>228</td>
<td>182.6</td>
</tr>
<tr>
<td>S</td>
<td>184</td>
<td>197</td>
<td>183</td>
<td>188.0</td>
</tr>
<tr>
<td>T</td>
<td>180</td>
<td>183</td>
<td>229</td>
<td>197.3</td>
</tr>
<tr>
<td>U</td>
<td>177</td>
<td>181</td>
<td>205</td>
<td>187.6</td>
</tr>
<tr>
<td>V</td>
<td>171</td>
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</tr>
<tr>
<td>W</td>
<td>173</td>
<td>175</td>
<td>225</td>
<td>191.0</td>
</tr>
<tr>
<td>X</td>
<td>176</td>
<td>180</td>
<td>224</td>
<td>193.3</td>
</tr>
<tr>
<td>Y</td>
<td>162</td>
<td>162</td>
<td>219</td>
<td>181.0</td>
</tr>
<tr>
<td>Z</td>
<td>168</td>
<td>139</td>
<td>201</td>
<td>169.3</td>
</tr>
<tr>
<td>A</td>
<td>154</td>
<td>145</td>
<td>191</td>
<td>163.3</td>
</tr>
</tbody>
</table>

This table should be read. Teacher A was given a score of 173 by Rater # 1, 147 by Rater # 2, and 231 by Rater # 3, and the average of the three scores is 183.6, etc.

(c) Actual gains in knowledge of school subjects as shown by the Stanford Achievement Tests.

To determine the results of the efforts of each teacher in teaching the subjects in the school course of study, the Revised Stanford Achievement Tests were used. Form V was given in October, 1930, and Form W in April, 1931. (Copies of each test may be found in the appendix.)

The teacher continued with the same group of pupils throughout the year. Pupils in each room when the second test was given and not present when the first test was given, were eliminated from the calculations.

Teachers were not aware the tests were being used to measure their success.
The tests were scored by each teacher and rescored in the office of the superintendent.

The composite score of each pupil as provided by the test was computed.

The median of these composite scores of the pupils of each teacher was found.

A comparison of the median composite scores of each group in the April test and the median composite score for the same group in the October test showed the gain in medians made by the pupils of each teacher for the year. The results are shown in Table III.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Grade</th>
<th>Number of Pupils</th>
<th>Median Composite Score in April, 1931</th>
<th>Median Composite Score in October, 1930</th>
<th>Median Composite Gain in Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>6</td>
<td>34</td>
<td>92</td>
<td>81</td>
<td>11</td>
</tr>
<tr>
<td>B.</td>
<td>7</td>
<td>136</td>
<td>105</td>
<td>95</td>
<td>10</td>
</tr>
<tr>
<td>C.</td>
<td>4</td>
<td>46</td>
<td>59</td>
<td>54</td>
<td>5</td>
</tr>
<tr>
<td>D.</td>
<td>8</td>
<td>136</td>
<td>105</td>
<td>99</td>
<td>6</td>
</tr>
<tr>
<td>E.</td>
<td>7</td>
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<td>89</td>
<td>85</td>
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<td>F.</td>
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<td>73</td>
<td>64</td>
<td>12</td>
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<tr>
<td>H.</td>
<td>6</td>
<td>36</td>
<td>84</td>
<td>75</td>
<td>9</td>
</tr>
<tr>
<td>I.</td>
<td>6</td>
<td>37</td>
<td>88</td>
<td>81</td>
<td>7</td>
</tr>
<tr>
<td>J.</td>
<td>4</td>
<td>23</td>
<td>65</td>
<td>56</td>
<td>9</td>
</tr>
<tr>
<td>K.</td>
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<td>27</td>
<td>65</td>
<td>54</td>
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<tr>
<td>L.</td>
<td>7</td>
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<td>183</td>
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</tr>
<tr>
<td>M.</td>
<td>5</td>
<td>39</td>
<td>73</td>
<td>66</td>
<td>12</td>
</tr>
<tr>
<td>N.</td>
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<td>19</td>
<td>91</td>
<td>86</td>
<td>5</td>
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<tr>
<td>O.</td>
<td>7</td>
<td>172</td>
<td>100</td>
<td>96</td>
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<tr>
<td>P.</td>
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<td>12</td>
</tr>
<tr>
<td>T.</td>
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<td>U.</td>
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<tr>
<td>V.</td>
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<td>36</td>
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<td>Y.</td>
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<td>36</td>
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<td>Z.</td>
<td>3</td>
<td>33</td>
<td>51</td>
<td>34</td>
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<td>A. a.</td>
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<td>41</td>
<td>62</td>
<td>52</td>
<td>10</td>
</tr>
</tbody>
</table>
CHAPTER III

Treatment of Data

(a) The averages of teachers marks given in Table I, were arranged in order with highest average first, the next highest second, etc.

The ranks are shown in table IV.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Average of Marks or Grades</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>93.84</td>
<td>1</td>
</tr>
<tr>
<td>B.</td>
<td>92.56</td>
<td>2</td>
</tr>
<tr>
<td>C.</td>
<td>91.08</td>
<td>3</td>
</tr>
<tr>
<td>D.</td>
<td>90.34</td>
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</tr>
<tr>
<td>E.</td>
<td>89.75</td>
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</tr>
<tr>
<td>F.</td>
<td>88.2</td>
<td>6</td>
</tr>
<tr>
<td>G.</td>
<td>88.5</td>
<td>7</td>
</tr>
<tr>
<td>H.</td>
<td>87.06</td>
<td>8</td>
</tr>
<tr>
<td>I.</td>
<td>86.95</td>
<td>9</td>
</tr>
<tr>
<td>J.</td>
<td>86.07</td>
<td>10</td>
</tr>
<tr>
<td>K.</td>
<td>85.97</td>
<td>11</td>
</tr>
<tr>
<td>L.</td>
<td>85.71</td>
<td>12</td>
</tr>
<tr>
<td>M.</td>
<td>85.66</td>
<td>13</td>
</tr>
<tr>
<td>N.</td>
<td>85.51</td>
<td>14</td>
</tr>
<tr>
<td>O.</td>
<td>83.71</td>
<td>15</td>
</tr>
<tr>
<td>P.</td>
<td>83.09</td>
<td>16</td>
</tr>
<tr>
<td>Q.</td>
<td>82.9</td>
<td>17</td>
</tr>
<tr>
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</tr>
<tr>
<td>S.</td>
<td>82.45</td>
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</tr>
<tr>
<td>T.</td>
<td>81.64</td>
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</tr>
<tr>
<td>U.</td>
<td>81.55</td>
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</tr>
<tr>
<td>V.</td>
<td>80.4</td>
<td>22</td>
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<tr>
<td>W.</td>
<td>78.59</td>
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</tr>
<tr>
<td>X.</td>
<td>77.64</td>
<td>24</td>
</tr>
<tr>
<td>Y.</td>
<td>77.41</td>
<td>25</td>
</tr>
<tr>
<td>Z.</td>
<td>76.87</td>
<td>26</td>
</tr>
<tr>
<td>A. a.</td>
<td>76.81</td>
<td>27</td>
</tr>
</tbody>
</table>
(b) The averages of the scores on the judgment rating scale as shown in Table II were ranked in order, the teacher having the highest average score is ranked 1; the next highest 2; etc.

**TABLE V**

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Average of Scores on Rating Scale</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.</td>
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</tr>
<tr>
<td>I.</td>
<td>214.</td>
<td>2</td>
</tr>
<tr>
<td>G.</td>
<td>213.3</td>
<td>3</td>
</tr>
<tr>
<td>Q.</td>
<td>211.6</td>
<td>4</td>
</tr>
<tr>
<td>C.</td>
<td>202.</td>
<td>5.5</td>
</tr>
<tr>
<td>M.</td>
<td>202.</td>
<td>5.5</td>
</tr>
<tr>
<td>D.</td>
<td>197.6</td>
<td>7</td>
</tr>
<tr>
<td>T.</td>
<td>197.3</td>
<td>8</td>
</tr>
<tr>
<td>X.</td>
<td>193.3</td>
<td>9</td>
</tr>
<tr>
<td>B.</td>
<td>193.</td>
<td>10</td>
</tr>
<tr>
<td>P.</td>
<td>191.6</td>
<td>11</td>
</tr>
<tr>
<td>W.</td>
<td>191.</td>
<td>12</td>
</tr>
<tr>
<td>J.</td>
<td>190.3</td>
<td>13</td>
</tr>
<tr>
<td>S.</td>
<td>188.</td>
<td>14</td>
</tr>
<tr>
<td>U.</td>
<td>187.6</td>
<td>15</td>
</tr>
<tr>
<td>F.</td>
<td>185.6</td>
<td>16</td>
</tr>
<tr>
<td>A.</td>
<td>183.6</td>
<td>17</td>
</tr>
<tr>
<td>R.</td>
<td>182.6</td>
<td>18</td>
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<td>Y.</td>
<td>181.</td>
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<td>V.</td>
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<td>C.</td>
<td>176.</td>
<td>21</td>
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<td>H.</td>
<td>175.</td>
<td>22</td>
</tr>
<tr>
<td>K.</td>
<td>172.3</td>
<td>23</td>
</tr>
<tr>
<td>Z.</td>
<td>169.3</td>
<td>24</td>
</tr>
<tr>
<td>E.</td>
<td>168.</td>
<td>25</td>
</tr>
<tr>
<td>A. a.</td>
<td>163.3</td>
<td>26</td>
</tr>
<tr>
<td>L.</td>
<td>155.3</td>
<td>27</td>
</tr>
</tbody>
</table>
(c) The gains in composite median scores in achievement tests as shown in Table III are arranged in order. The teacher whose pupils gained the highest number of points is ranked 1; the next highest 2; etc., as shown in Table VI.

TABLE VI

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Gains in medians of Composite Scores on Achievement Tests</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z.</td>
<td>17</td>
<td>1.5</td>
</tr>
<tr>
<td>R.</td>
<td>17</td>
<td>1.5</td>
</tr>
<tr>
<td>U.</td>
<td>16</td>
<td>3.5</td>
</tr>
<tr>
<td>P.</td>
<td>15</td>
<td>3.5</td>
</tr>
<tr>
<td>T.</td>
<td>15</td>
<td>3.5</td>
</tr>
<tr>
<td>V.</td>
<td>15</td>
<td>3.5</td>
</tr>
<tr>
<td>Q.</td>
<td>14</td>
<td>7.5</td>
</tr>
<tr>
<td>G.</td>
<td>12</td>
<td>9.5</td>
</tr>
<tr>
<td>M.</td>
<td>12</td>
<td>9.5</td>
</tr>
<tr>
<td>S.</td>
<td>12</td>
<td>9.5</td>
</tr>
<tr>
<td>W.</td>
<td>12</td>
<td>9.5</td>
</tr>
<tr>
<td>A.</td>
<td>11</td>
<td>12.5</td>
</tr>
<tr>
<td>K.</td>
<td>11</td>
<td>12.5</td>
</tr>
<tr>
<td>B.</td>
<td>10</td>
<td>15.</td>
</tr>
<tr>
<td>Y.</td>
<td>10</td>
<td>15.</td>
</tr>
<tr>
<td>A. a.</td>
<td>10</td>
<td>15.</td>
</tr>
<tr>
<td>H.</td>
<td>9</td>
<td>18.</td>
</tr>
<tr>
<td>J.</td>
<td>9</td>
<td>18.</td>
</tr>
<tr>
<td>X.</td>
<td>9</td>
<td>18.</td>
</tr>
<tr>
<td>L.</td>
<td>8</td>
<td>20.</td>
</tr>
<tr>
<td>Q.</td>
<td>7</td>
<td>21.</td>
</tr>
<tr>
<td>D.</td>
<td>6</td>
<td>22.5</td>
</tr>
<tr>
<td>F.</td>
<td>5</td>
<td>22.5</td>
</tr>
<tr>
<td>C.</td>
<td>5</td>
<td>24.5</td>
</tr>
<tr>
<td>N.</td>
<td>4</td>
<td>24.5</td>
</tr>
<tr>
<td>E.</td>
<td>4</td>
<td>25.5</td>
</tr>
<tr>
<td>O.</td>
<td>4</td>
<td>25.5</td>
</tr>
</tbody>
</table>
(d) To facilitate comparison and analysis, the rankings, shown in Tables IV, V, and VI, are combined in Table VII.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Rank of Average of College Marks</th>
<th>Rank of Average or Score on Rating Scale</th>
<th>Rank of Gain in median of Composite Scores in Achievement Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>1</td>
<td>17</td>
<td>12.5</td>
</tr>
<tr>
<td>B.</td>
<td>2</td>
<td>10</td>
<td>15.</td>
</tr>
<tr>
<td>C.</td>
<td>3</td>
<td>21</td>
<td>24.5</td>
</tr>
<tr>
<td>D.</td>
<td>4</td>
<td>7</td>
<td>22.5</td>
</tr>
<tr>
<td>E.</td>
<td>5</td>
<td>3</td>
<td>22.5</td>
</tr>
<tr>
<td>F.</td>
<td>6</td>
<td>16</td>
<td>22.5</td>
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<tr>
<td>G.</td>
<td>7</td>
<td>3</td>
<td>9.5</td>
</tr>
<tr>
<td>H.</td>
<td>8</td>
<td>22</td>
<td>18.</td>
</tr>
<tr>
<td>I.</td>
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<td>2</td>
<td>21.</td>
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<tr>
<td>K.</td>
<td>11</td>
<td>23</td>
<td>12.5</td>
</tr>
<tr>
<td>L.</td>
<td>12</td>
<td>27</td>
<td>20.</td>
</tr>
<tr>
<td>M.</td>
<td>13</td>
<td>5.5</td>
<td>9.5</td>
</tr>
<tr>
<td>N.</td>
<td>14</td>
<td>1</td>
<td>24.5</td>
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<tr>
<td>O.</td>
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<td>5.5</td>
<td>25.5</td>
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<td>P.</td>
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<td>11</td>
<td>3.5</td>
</tr>
<tr>
<td>Q.</td>
<td>17</td>
<td>4</td>
<td>7.</td>
</tr>
<tr>
<td>R.</td>
<td>18</td>
<td>18</td>
<td>1.5</td>
</tr>
<tr>
<td>S.</td>
<td>19</td>
<td>14</td>
<td>9.5</td>
</tr>
<tr>
<td>T.</td>
<td>20</td>
<td>8</td>
<td>5.5</td>
</tr>
<tr>
<td>U.</td>
<td>21</td>
<td>15</td>
<td>3.5</td>
</tr>
<tr>
<td>V.</td>
<td>22</td>
<td>20</td>
<td>5.5</td>
</tr>
<tr>
<td>W.</td>
<td>23</td>
<td>12</td>
<td>9.5</td>
</tr>
<tr>
<td>X.</td>
<td>24</td>
<td>9</td>
<td>18.</td>
</tr>
<tr>
<td>Y.</td>
<td>25</td>
<td>19</td>
<td>15.</td>
</tr>
<tr>
<td>Z.</td>
<td>26</td>
<td>24</td>
<td>1.5</td>
</tr>
<tr>
<td>A. a.</td>
<td>27</td>
<td>26</td>
<td>15.</td>
</tr>
</tbody>
</table>

This table should read teacher, A, ranks 1 in average of college marks, 17 in average of scores on judgment rating scales, and 12 in points her pupils gained in medians of composite scores as shown by achievement tests.

For convenience of comparison, the teachers are divided into three groups: The upper third includes those teachers who rank from 1 to 9 in averages of college marks or grades; the middle third, those who rank from 10 to 18; and the lowest third, those who rank from 19 to 27.
(a) Of the teachers who rank in the upper third (1-9) in averages of college marks,
   (1) 3 are found in the first tertile in averages on judgment rating scale and 1 in first
tertile in points gained on achievement scale.
   (2) 3 are found in second tertile in average on rating scale, and 3 in second tertile
in ranks of gains on tests.
   (3) 3 are found in lowest tertile in average of marks and 5 rank in lowest tertile in
points gained.

(b) Of the teachers who rank in the middle third (10-18) in averages of college marks,
   (1) 4 are found in first tertile in rating on judgment scale, and 4 are found in first
tertile in points gained in tests.
   (2) 3 are found in second tertile in average on scale, and 2 rank in second tertile in
points gained in tests.
   (3) 2 are found in lower tertile in average on scale and 3 rank in lowest tertile in gains
on scale.

(c) Of the teachers who rank in the lowest third (19-27) in average of college marks,
   (1) 2 are found in upper tertile in averages on rating scale and 5 rank in first tertile
in gains on tests.
   (2) 3 are found in second tertile in average on scale and 3 rank in second tertile in
gains on tests.
   (3) 4 are found in lowest tertile in average on scale and 1 ranks in lowest tertile in
gains on tests.

<table>
<thead>
<tr>
<th>TABLE VIII</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
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<table>
<thead>
<tr>
<th>Rankings of Averages of College Marks</th>
<th>Number of Teachers in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rankings of Averages on Rating Scale.</td>
<td>!Achievement Test. !Number of Teachers in:</td>
</tr>
<tr>
<td>Number of Teachers in:</td>
<td>!First Tertile!Second Tertile!Third Tertile</td>
</tr>
<tr>
<td>!First Tertile! !Second Tertile! !Third Tertile</td>
<td></td>
</tr>
<tr>
<td>!First Tertile! !Second Tertile! !Third Tertile</td>
<td></td>
</tr>
<tr>
<td>First Tertile! 3 3 3 !1 !3 !5</td>
<td></td>
</tr>
<tr>
<td>Second Tertile! 4 3 2 !4 !2 !3</td>
<td></td>
</tr>
<tr>
<td>Third Tertile! 2 3 4 !5 !3 !1</td>
<td></td>
</tr>
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</table>

This table shows the number of teachers in each tertile of the rankings in the two measures used to determine teaching success, and the relation of these, to the teachers in each tertile of the rankings of averages of college marks.
CONCLUSIONS

The facts, revealed by the above comparison of the rankings of averages of college marks of this group of twenty-seven teachers, and the teaching success of these teachers as measured by the judgment rating scale used in this study, and the actual pupil gains in subject matter, made by the pupils of these teachers as measured by the Revised Stanford Achievement Tests, justify the following conclusions:

1. No correlation seems to exist between highest averages of college marks of the teachers in this group and their success in teaching, as indicated by the averages of three ratings on a judgment rating scale.

2. No appreciable relation is shown between the rankings of averages of college marks and the rankings of pupil gains made by pupils of these teachers, as measured by the Revised Stanford Achievement Tests.

3. In the lowest third of the rankings of pupil gains, five teachers are found in the first tertile of the teachers having the highest averages of college marks. This seems to indicate the teachers of this group, with the highest college marks, obtain the smallest number of pupil gains in academic subject matter.

4. If the evidence of this study is reliable, college grades or marks can be ignored in selecting teachers.

Some Limitations

It is the opinion of the author of this study, the number of teachers considered is too small to give any reliability to the conclusions.

The method used in reducing the college symbols of A, B, etc., to numerical value may be of doubtful validity.

The use of the judgment rating scale by principals uniformly produced much higher scores than either of the other raters. It is possible the subjective element in many cases played too prominent a part to give a valid rating.
APPENDIX.
### Courses

<table>
<thead>
<tr>
<th><strong>English</strong></th>
<th><strong>College Marks</strong></th>
<th><strong>Equivalent Per cent</strong></th>
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</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>S</td>
<td>76</td>
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<tr>
<td>English Composition</td>
<td>S</td>
<td>76</td>
</tr>
<tr>
<td>Business English</td>
<td>S</td>
<td>76</td>
</tr>
<tr>
<td>English Composition</td>
<td>A</td>
<td>86</td>
</tr>
<tr>
<td>American Poets</td>
<td>S</td>
<td>76</td>
</tr>
</tbody>
</table>

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</thead>
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<td>86</td>
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<tr>
<td>History of the West</td>
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<td>76</td>
</tr>
<tr>
<td>History of Missouri</td>
<td>A</td>
<td>86</td>
</tr>
<tr>
<td>European History</td>
<td>A</td>
<td>86</td>
</tr>
<tr>
<td>Current History</td>
<td>S</td>
<td>76</td>
</tr>
<tr>
<td>English History</td>
<td>S</td>
<td>76</td>
</tr>
<tr>
<td>Hebrew History</td>
<td>A</td>
<td>86</td>
</tr>
<tr>
<td>Problems of Citizenship</td>
<td>S</td>
<td>76</td>
</tr>
</tbody>
</table>

<table>
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<th><strong>Science</strong></th>
<th><strong>College Marks</strong></th>
<th><strong>Equivalent Per cent</strong></th>
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<tr>
<td>Nature Study</td>
<td>A</td>
<td>86</td>
</tr>
<tr>
<td>Entomology</td>
<td>A</td>
<td>86</td>
</tr>
<tr>
<td>Bird Study</td>
<td>S</td>
<td>76</td>
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<tr>
<td>Physics</td>
<td>A</td>
<td>86</td>
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<tr>
<td>Hygiene</td>
<td>S</td>
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<table>
<thead>
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<th><strong>Education</strong></th>
<th><strong>College Marks</strong></th>
<th><strong>Equivalent Per cent</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Test</td>
<td>A</td>
<td>86</td>
</tr>
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<td>Educational Sociology</td>
<td>A</td>
<td>86</td>
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<td>School Economy</td>
<td>A</td>
<td>86</td>
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<tr>
<td>Elementary Psychology</td>
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<td>Elementary Course of Study</td>
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<tr>
<td>Principles of Teaching</td>
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<td>86</td>
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<td>Educational Psychology</td>
<td>A</td>
<td>86</td>
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<tr>
<td>Methods in History</td>
<td>S</td>
<td>76</td>
</tr>
<tr>
<td>Practice Teaching</td>
<td>S</td>
<td>76</td>
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<tr>
<td>Principles of Teaching</td>
<td>S</td>
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<td>A</td>
<td>86</td>
</tr>
<tr>
<td>Practice Teaching</td>
<td>S</td>
<td>76</td>
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<tr>
<td>Teaching English</td>
<td>S</td>
<td>76</td>
</tr>
<tr>
<td>Teaching Grade Geography</td>
<td>S</td>
<td>76</td>
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<tr>
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<th><strong>College Marks</strong></th>
<th><strong>Equivalent Per cent</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sight Singing</td>
<td>S</td>
<td>76</td>
</tr>
<tr>
<td>History of Music</td>
<td>S</td>
<td>76</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Commerce</strong></th>
<th><strong>College Marks</strong></th>
<th><strong>Equivalent Per cent</strong></th>
</tr>
</thead>
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<td>76</td>
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<td>Typewriting</td>
<td>A</td>
<td>86</td>
</tr>
<tr>
<td>Physical Education</td>
<td>S</td>
<td>76</td>
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</tbody>
</table>

**Average** 85.97
Teacher Designated in Study as W.

College or University--Ottawa University.

<table>
<thead>
<tr>
<th>Courses</th>
<th>College Marks</th>
<th>Equivalent Marks</th>
<th>Equivalent Per cent</th>
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College or University--K.S.T.C. Kansas Teachers College Emporia.

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Average 78.59
On this and the following pages is a schedule for rating the success of teachers, (A) on certain general qualities or characteristics other than scholarship, and (B) on the ability to develop and maintain school morale.

To the right of each quality are six blocks. Each column of blocks is numbered from left to right; 1, 2, 3, 4, 5, 6. Each quality under each subdivision is listed a, b, c, etc.

How to rate or score with this scale:
(a) The one who does the rating will place a check (✓) in one of the blocks to indicate the score which his judgment assigns to that quality.
(b) To indicate a very high score, place the check in the first (1) block. To indicate the next highest, place check in the second (2) block, etc., and to show the lowest or poorest score, place the check in the last block or block 6.
1. 2. 3. 4. 5. 6.
Thus (✓)(✓)(✓)(✓)(✓)(✓) would rate the teacher as slightly above average on the quality scored.
(c) Check only one block for each quality.

The questions under each quality in A and B are for definition and guidance of the person who does the rating and are not to be scored separately. Only qualities listed a, b, c, etc., are to be scored.

A. General Qualities of Efficiency. 1. 2. 3. 4. 5. 6.
I. Business Efficiency
Is each day's work carefully thought through and the facts fresh in mind? Are materials and supplies needed for each lesson ready when the time for the lesson comes?
c. Promptness and Regularity- (✓)(✓)(✓)(✓)(✓)
Is she on time for her work each day? Does she seek to close early on some occasions and hold late on others? Is there the tendency to want to dismiss school or be absent from school for trivial reasons?
d. Ability to plan work-----------------1, 2, 3, 4, 5, 6
Is there a monthly plan
as well as a weekly and a
daily one?
Is there a carefully
arranged plan for reaching
definite objectives?
e. Economy in use of time and
supplies------------------------1, 2, 3, 4, 5, 6
Is there any waste of
time?
Are supplies used economically?
Does the teacher appreciate
the value to her pupils of
economy in the use of
time and material?

II. Classroom Management.
a. Physical condition of room
Does the teacher give
attention to a proper
lighting and temperature
of the room?
Is the room kept neat and
attractive?
b. Posture of pupils------1, 2, 3, 4, 5, 6
Do pupils stand without
leaning on desk or chair
for support?
Do they assume a good sit-
ting posture?
Do they walk quietly and
briskly about the room?
c. Discipline or control of
pupils------------------------1, 2, 3, 4, 5, 6
Does the class work
proceed smoothly?
Is any of the class time
taken to discipline or
reprimand?
Are the materials and equip-
ment in the room effective-
ly arranged?
Does the group have the
appearance of a busy work
shop?
d. Care of School property

Does the room have the appearance of proper regard for school property? Is the property used with care as if it were personal and not public? Is there a place for everything and everything in its place?

e. Care as to routine

Does the work proceed in some systematic order? Is the work conducted so that habits of order and regularity may be developed in pupils? Is there a time for the work of the day and everything on time?

III. Teaching Efficiency.

a. Are there indications that skill is exercised in teaching children how to study?

b. Is the work of pupils motivated so that there is an urge to effort?

c. Is there a clear aim or objective reached during the class exercise?

d. Is the work placed in problem form so that pupils may work with a definite purpose?

e. Does the teacher use to advantage, illustrative material and other teaching devices?

f. Is skill shown in getting pupils to exerciseoriginality and initiative?

g. Is the work so organized that individual difference in pupils are cared for?

h. Are the assignments clear, and purposeful, acting as a stimulus to effort?
Teaching Efficiency Continued.

i. Is the teacher skillful in the art of questioning?

j. Do pupils show ability in organizing the facts taught and in making summaries?

k. Do the attitudes of pupils indicate interest in their school work?

l. Are pupils able to make the application of knowledge learned to every day problems?

m. Does the teacher show skill in leading and directing, and not dominating?

n. Does she make the mistake of wasting the time of class to teach an individual pupil something the majority of the class knows?

o. Is the teacher skillful in individual instruction?

B. The Development and Maintenance of School Morale.

I. Personal or native qualities that contribute to the maintenance of a proper school spirit.

a. General appearance

b. Health

c. Self-control of poise

- Does the teacher maintain an evenness of temperament?
- Is she easily perturbed?
- Is she nervous or flighty?
d. Optimism - Enthusiasm

1. Does the teacher see the bright and cheerful side of life?
   Does she see the good in every child?
   Is she inclined to find something worth while even in trying situations?
   Does she show evidence of enjoying her work?

2. Optimism - Enthusiasm
   Adaptability and resourcefulness
   Is the teacher able to make the best of unusual situations?
   Can she accept and use to advantage, incidental opportunities for instruction?
   Is she resourceful in finding special abilities in children?
   Can she turn and use to advantage in school, the interest of children in out-of-school activities?

3. Optimism - Enthusiasm
   Voice
   Is the teacher's voice pleasing, harsh, shrill, nagging?
   Is it clear, or indistinct, foreign accent?
   Is it low, well modulated, or high pitched?
   Is it positive?

4. Optimism - Enthusiasm
   Industry
   Does the teacher keep busy at worthwhile work?
   Does she devote sufficient time to preparation of work?
   Is she inclined to put work off to another time?
   Is she willing to assume responsibility?

5. Optimism - Enthusiasm
   Initiative
   Does she show original ways of doing?
   Does she confine herself to the usual, well-tried and old methods?
   Does she think through and try new plans?
The Development and Maintenance of School Morale Continued.

i. Integrity and Sincerity

Does she meet her obligations?

Does she keep her promises?

Do the pupils feel they can rely on what she says?

j. Sense of justice

Does every pupil get fair treatment?

Are there any specially favored ones?

Does each pupil get his full share of praise?

II. Social Efficiency: (The proper social contacts with pupils and others does much toward keeping a good feeling among people interested in school)

a. Tact

Does the teacher have ability to divert easily, the attention from wrong or harmful situations to better ones?

Can she see and appreciate the viewpoint of others?

b. Fairmindedness

Is the teacher fair and considerate with those with whom she deals?

Does she recognize that others are sometimes right and that she might be mistaken?

Has she the courage to tell patrons unpleasant facts when the need arises?

c. Sympathetic interest in pupils

Do the difficulties met by pupils produce a feeling of sympathy on part of the teacher?

Does she rejoice in the success of pupils?

Does she feel a sense of sorrow at failure to achieve?
Social Efficiency Continued.

d. Ability to meet and interest patrons

Does she meet patrons in a courteous manner?
Does she make them feel welcome in her room?
Does she stimulate interest in school on the part of patrons?
Does she meet rebuke by a patron with a smile?

e. Cooperation with other teachers

Is she a good team worker?
Does she appreciate the need of a friendly social attitude toward fellow workers?
Does she always have something good to say about other teachers?
Does she speak despairingly of other teachers to friends who are not teachers?

f. Cooperation with supervisors and administrative officers

Does she look upon these officials as persons desiring to help her in her work?
Does she uphold the policies of administrative officers?
Is she loyal to the school management?

Does she secure the cooperation of pupils in class room activities and extra class room activities?

h. Does she secure the respect and confidence of the public?

Does she meet her financial obligations promptly?
Does the public believe what she says?
Has she social approval?
Social Efficiency Continued.

j. Interest in church and civic organizations-------(1) (2) (3) (4) (5) (6)
Is she a good citizen of the community?
Is she interested in those things that tend to upbuild the community?

Does she see and appreciate the humorous side of apparently serious situations?
Can she frequently enjoy a good laugh with her pupils?
Can she laugh or smile when things at school go wrong?

Does she know the workings of the child mind?
Does she know adult notions cannot be superimposed on children?
Does she know the likes and dislikes of children in the several levels of growth?

m. Sense of appreciation------(=)(=)(=)(=)(=)
Does she see that effort is sometimes better than fine accomplishment?
Does she feel a sense of pleasure at good intentions on the part of pupils and others? Does she express her feelings of appreciation or withhold them?

n. Loyalty to school and community------------------(=)(=)(=)(=)(=)
Does she believe in the school and community which furnish her employment?
Does she keep herself physically and mentally fit in order to render the best service possible?
Does she permit her pupils to criticise individuals, the school, or community institutions?

o. Are her pupils happy and contented and interested in the tasks of the school?--------(=)(=)(=)(=)(=)
My dear Mr.:

I am one of those, fortunate or unfortunate, individuals, who is trying to work out a thesis problem. As is the case with so many of such workers, I find myself in need of expert assistance.

In the solution of my problem, it is necessary to develop a scale for rating the success or efficiency of teachers. This scale is to be based on qualities or characteristics other than scholarship; i.e., the factor of scholarship is not to be considered.

I am sending you herewith a copy of a proposed scale. I will be very grateful, if you will be kind enough to answer the following questions:

In your opinion,

a. Would this scale in the hands of principals and supervisors of the type usually found in our schools, give a measure of a teacher’s success?

b. Are there any unnecessary factors included?

c. What vital factors or qualities other than scholarship have been omitted?

d. Would this scale be difficult to administer?

e. Wherein is the weakest point in this scale?

Please add any suggestion you consider helpful.

Sincerely,
### List To Whom Scale, A, Was Sent To Obtain Judgments on Its Validity In Measuring Teaching Success.

1. R. E. Cowans  
   Principal of High School  
   Ottawa, Kansas.

2. E. L. Holton  
   Dean of Dept. of Education  
   K.S.A.C. Manhattan, Kansas.

3. W. J. Williams  
   Head of Dept. of Education  
   Baker Univ. Baldwin, Kansas

4. Edgar N. Mendenhall  
   Dept. of Education  
   Tests and measurements  
   K.S.T.C. Pittsburg, Kansas

5. Harold N. Brown  
   Assoc. Prof. of Education  
   Univ. of Nevada, Reno, Nev.

6. W. T. Markham  
   Sup't of Schools  
   Yates Center, Kansas

7. W. W. Mc Connell  
   Sup't of Schools  
   Winfield, Kansas

8. R. V. Phinney  
   Sup't of Schools  
   Larned, Kansas

9. H. E. Chandler  
   Secy. of Appointment Bureau  
   K.U., Lawrence, Kansas.

10. A. M. Mc Cullough  
    Sup't of Schools  
    Wellington, Kansas

11. J. H. Clement  
    Sup't of Schools  
    Independence, Kansas

12. F. P. O'Brien  
    Director of Bureau of Public School Service  
    K.U., Lawrence, Kansas

13. L. H. Pettit  
    Sup't of Schools  
    Chanute, Kansas

14. A. M. Thoroman  
    Sup't of Schools  
    Iola, Kansas

15. L. A. Lowther  
    Sup't of Schools  
    Emporia, Kansas

16. Geo. P. Crissman  
    Department of History  
    Former Head of Training Schools, Teacher's College Warrensburg, Mo.  
    Teacher's College Alva, Okla.

17. Ira O. Scott  
    Sup't of Schools  
    Garden City, Kansas.

18. E. B. Allbaugh  
    Sup't of Schools  
    Concordia, Kansas

19. E. L. Novotney  
    Sup't of Schools  
    Junction City, Kansas

20. C. E. St. John  
    Sup't of Schools  
    Arkansas City, Kansas

21. W. M. Richards  
    Sup't of Schools  
    Dodge City, Kansas

22. A. E. Lunceford  
    Head of Teacher's Training Teachers College, Flagstaff, Arizona.

23. John F. Bender  
    Prof. of School Administration  
    Okla. Univ., Norman, Okla.
List to Whom Scale A was Sent to Obtain Judgments on Its Validity in Measuring Teaching Success.

24. W. E. Sheffer  
Sup't of Schools  
Manhattan, Kansas.

25. Floyd E. Lee  
Sec'y of Appointment Bureau  
K.S.T.C., Hays, Kansas

26. H. G. Lull  
Head of Training School  
K.S.T.C., Emporia, Kansas

27. J. H. Heffelfinger  
Sup't of Schools  
Newton, Kansas

28. Clyde O. Davidson  
Sup't of Schools  
Columbus, Kansas

29. Glenn A. Delay  
Sup't of Schools  
Neodesha, Kansas

30. Dr. T. B. Homan  
Head of Department of Education  
Ottawa, Univ., Ottawa, Kansas

31. Emil Kratochvil  
Sup't of Schools  
Clay Center, Kansas.
Table I
Summary of Responses to Questionnaire.

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"Values should be assigned qualities.
"Would qualify taking answers of ratings.
"Provide for measuring results of teaching.
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"Meeting financial obligations.
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"Long and Make it involved simpler.
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Rating Sheet
for
Scoring the Efficiency
of Teachers.

On this and the following pages is a schedule for rating the success of teachers, (A) on certain general qualities or characteristics other than scholarship, and (B) on the ability to develop and maintain school morale.

To the right of each quality are five blocks. Each column of blocks is numbered from left to right; 1, 2, 3, 4, 5. Each quality under each subdivision is listed a, b, c, etc.

How to rate or score with this scale:
(a) The one who does the rating will place a check ( ) in one of the blocks to indicate the score which his judgment assigns to that quality.
(b) To indicate a very high score, place the check in the first (1) block. To indicate the next highest, place check in the second (2) block, etc., and to show the lowest or poorest score, place the check in the last block or block 5.
Thus (_)(_)(_)(_)(_)) would rate the teacher as average on the quality scored.
(c) Check only one block for each quality.

The questions under each quality in A and B are for definition and guidance of the person who does the rating and are not to be scored separately. Only qualities listed a, b, c, etc. are to be scored.

__________________________ Teacher.  ____________ Rater.

A. General Qualities of Efficiency.
  I. Business Efficiency.
    a. Promptness and accuracy in making out grades and reports------------(1, 2, 3, 4, 5).
    b. Daily preparation-----------(2, 3, 4, 5)
       Is each day's work carefully thought through and the facts fresh in mind?
       Are materials and supplies needed for each lesson ready when the time for the lesson comes?
c. Promptness and Regularity-----( ) ( ) ( ) ( ) ( )
   Is she on time for her work each day?
   Does she seek to close early on some occasions and hold late on others? Is there the tendency to want to be absent from school for trivial reasons?

d. Organization of subject matter for purpose of teaching-------( ) ( ) ( ) ( ) ( )
   Is there a monthly plan as well as a weekly and a daily one?
   Is there a carefully arranged plan for reaching definite objectives?

e. Economy in use of time and supplies-----------------------( ) ( ) ( ) ( ) ( )
   Is any time wasted?
   Are supplies used economically?
   Are pupils taught or encouraged to use time and materials economically in the preparation of their work?

f. Voice-------------------------( ) ( ) ( ) ( ) ( )
   Is the teacher's voice pleasing? Not harsh, shrill or nagging?
   Is it clear? Not indistinct or with foreign accent?
   Is it low and well modulated? Not high pitched?
   Is it positive and convincing?

g. Industry-----------------------( ) ( ) ( ) ( ) ( )
   Does the teacher keep busy at worthwhile work?
   Does she devote sufficient time to preparation of work?
   Is she inclined to put off work to another time?
   Is she willing to assume responsibility cheerfully?

h. Initiative-----------------------( ) ( ) ( ) ( ) ( )
   Does she show original ways of doing?
   Does she confine herself to the usual, well-tried and old methods?
   Does she think through and try new methods?
Business Efficiency Continued.

1. Integrity and sincerity------ (1) (2) (3) (4) (5)
   Does she meet her financial obligations?
   Does she keep her promises?
   Do the pupils feel they can rely on what she says?

2. Sense of justice-------------- (1) (2) (3) (4) (5)
   Does every pupil get fair treatment?
   Are there any specially favored ones?
   Does each pupil get his full share of praise?
   Is her criticism kind and constructive?

3. Professional interest and growth---------------------- (1) (2) (3) (4) (5)
   Does she look upon teachers' meeting as a means of growth?
   Is she interested in affairs of teachers' associations (local, state, national)?
   Does she read regularly, teachers' magazines and books on education?
   Does she attend summer school, take extension work of any kind?
   Does she broaden her mental horizon by travel?

II. Classroom Management.

a. Physical condition of room------ (1) (2) (3) (4) (5)
   Does the teacher give attention to the proper lighting and temperature of the room?
   Is the room kept neat and attractive?

b. Posture of pupils------------- (1) (2) (3) (4) (5)
   Do pupils stand without leaning on desk or chair for support?
   Do they assume a good sitting posture?
   Do they walk about the room in an orderly manner?
c. Discipline or control of pupils
Does the class work proceed smoothly?
Is any of the class time taken to discipline or reprimand?
Are the materials and equipment in the room arranged for efficiency?
Does the group have the appearance of a busy work shop?

d. Care of school property
Does the room have the appearance of proper regard for school property?
Is the property used with care as if it were personal property?
Is there a place for everything and everything in its place?

e. Care as to routine
Does the work proceed in some systematic order?
Is the work conducted so that habits of order and regularity are developed in pupils?
Is there a time for the work of the day and everything on time?

III. Teaching Efficiency.

a. Are there indications that skill is exercised in teaching children how to study?

b. Is the work of pupils motivated so that there is an urge to effort?

c. Is there a clear aim or objective reached during the class exercise?

d. Is the work placed in problem form so that pupils may work with a definite purpose?

e. Does the teacher use to advantage, illustrative material and other teaching devices?

f. Is skill shown in getting pupils to exercise originality and initiative?
Teaching Efficiency Continued.

1. Does she adjust class procedure so that individual differences in pupils are cared for?

2. Are the assignments clear, and purposeful?

3. Is the teacher skillful in managing class procedures? Do her questions stimulate thinking? Are her questions clear and concise? Is discussion on part of pupils encouraged and stimulated? Does she adapt subject matter to ability or capacity of the learner?

4. Do her pupils organize the facts taught and make adequate summaries?

5. Do the attitudes of pupils indicate interest in their school work?

6. Do her pupils make application of knowledge learned to other problems?

7. Does the teacher show skill in directing activities of pupils? Do pupils have chance to exercise leadership? Does the teacher always decide what is to be done?

8. Does she make the mistake of wasting the time of the class to teach an individual pupil something the majority of the class know?

9. Is the teacher skillful in individual instruction?

10. Does the teacher have a "sense of values"?

B. The Development and Maintenance of School Morale.

I. Personal or native qualities that contribute to the maintenance of a proper school spirit.
The development and Maintenance of School Morale Continued.

1. General appearance

a. Does the teacher dress in good taste?
   Is the teacher neat and clean in her personal appearance?
   Does she carry herself with poise and ease?

2. Health

b. Does the teacher have good health?
   Is she vigorous?
   Is she buoyant in spirit?
   Does she radiate energy?

3. Self-control or poise

c. Does the teacher maintain an evenness of temperament?
   Is she easily perturbed?
   Is she nervous or flighty?

4. Optimism - Enthusiasm

d. Does the teacher see the bright and cheerful side of life?
   Does she see the good in every child?
   Is she inclined to find something worth while even in trying situations?
   Does she show evidence of enjoying her work?
   Does she show ardor, zeal, and interest in her work?

5. Adaptability and resourcefulness

e. Is the teacher able to make the best of unusual situations?
   Can she accept and use to advantage, incidental opportunities for instruction?
   Is she resourceful in finding special abilities in children?
   Can she turn and use to advantage in school, the interest of children in out-of-school activities?

II. Social Efficiency: (The proper social contacts with pupils and others does much toward keeping a good feeling among people interested in school.)
Social Efficiency Continued.

a. Tact--------------------------( ) ( ) ( ) ( )
   Does the teacher have ability
to divert easily, the attention
from wrong or harmful situations
to better ones?
Can she see and appreciate the
view point of others?

b. Fairmindedness-----------------( ) ( ) ( ) ( )
   Is the teacher fair and consider-
ate with those with whom she
deals?
Does she recognize that others
are sometimes right and that
she might be mistaken?
Has she the courage to tell
patrons unpleasant facts when
the need arises?

c. Sympathetic interest in pu-
pils?--------------------------( ) ( ) ( ) ( )
   Do the difficulties met by
pupils produce a feeling of
sympathy on part of the teach-
er?
Does she rejoice in the success
of pupils?
Does she feel a sense of sorrow
at failure to achieve?

d. Meeting and interesting
patrons--------------------------( ) ( ) ( ) ( )
   Does she meet patrons in a
courteous manner?
Does she make them feel wel-
come in her room?
Does she stimulate interest
in school on the part of
patrons?
Does she meet the criticism
tactfully without being
perturbed?
Has she social approval?

e. Cooperation with other teach-
ers--------------------------( ) ( ) ( ) ( )
   Is she a good team worker?
   Does she appreciate the need of
a friendly social attitude
toward fellow workers?
   Does she always have something
good to say about other teach-
ers?
   Does she speak disparagingly
of other teachers to friends
who are not teachers?
Social Efficiency Continued.

f. Cooperation with supervisors and administrative officers---(1) (2) (3) (4) (5) Does she look upon these officials as persons desiring to help her in her work? Does she uphold loyally the policies of administrative officers? Does she seek constructive criticism?

g. Does she secure the cooperation of pupils in classroom activities and extracurricular activities?---------------------------(1) (2) (3) (4) (5)

h. Does she secure the respect and confidence of her pupils?-------(1) (2) (3) (4) (5)

i. Interest in church and civic organizations--------------------------(1) (2) (3) (4) (5) Is she a good citizen of the community? Is she interested in those things that tend to upbuild the community?

j. Sense of humor------------------------- (1) (2) (3) (4) (5) Does she see and appreciate the humorous side of apparently serious situations? Can she frequently enjoy a good laugh with her pupils? Can she laugh or smile when things at school go wrong?

k. Understanding children--------- (1) (2) (3) (4) (5) Does she understand the functioning of the different types of minds in children? Does she appreciate the influence of environment upon the attitudes and habits of children? Does she know adult notions cannot be superimposed on children? Does she know the likes and dislikes of children in the several levels of growth?
Social Efficiency Continued.

1. Sense of appreciation

Does she see that effort is sometimes better than fine accomplishment?

Does she feel a sense of pleasure at good intentions on the part of pupils and others?

Does she express her feelings of appreciation or withhold them?

m. Loyalty to School and community

Does she believe in the school and community which furnish her employment?

Does she keep herself physically and mentally fit in order to render the best service possible?

Does she permit her pupils to criticize other pupils, other teachers, individuals in community, the school, or community institutions?

Total number of checks in column 1, 2, 3, etc.

Total Value of Scores.
New Stanford Achievement Test

By Truman L. Kelley, Giles M. Ruch, and Lewis M. Terman

ADVANCED EXAMINATION: FORM V

FOR GRADES 4-9

<table>
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<th>Score</th>
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<td>9. Arithmetic Reasoning</td>
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First record in this table the scores for Tests 1 to 10. Then find the Total Score. Then insert the scores for Total Reading and Total Arithmetic in the boxes to the left of the column headed "Score." For accuracy and convenience in recording the scores in the table in the left-hand margin of page 2, fold the page on the heavy line at the left of the profile chart and copy the scores from the above table (being careful to omit the Total Reading and Total Arithmetic).

To THE EXAMINER. Do not administer this test without first reading carefully the Directions for Administering.
DIRECTIONS: Write JUST ONE WORD on each dotted line.

SAMPLE:

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

1. Ned was crying because his pony had died. Just then a fairy appeared and asked him why he was so sad. "Because," said Ned, "my dear little ____________ is dead."

2. Christmas brought toys for all. There was a ball for Mary and a cart for Paul. When the children found the presents, they were very happy. Paul played with his ____________ and Mary with her ____________ all day.

3. Helen and Kate pulled their sled through the deep snow to the top of the hill and soon they 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.

4. A gray pussy saw a lark out in the field and thought it would make a fine dinner. "Come here, pretty lark," said the ____________, "and I will show you the bell that hangs on my neck." But the wise lark said he did not care to see the ____________ and flew away quickly.

5. A pretty squirrel once lived in a hollow tree near the window of a farmhouse. In the room where the window was, a little girl named Nellie lay sick. Every day the ____________ came to the window and chattered as though to keep ____________ from getting lonesome.

6. A grizzly bear had a home in the high peaks of the mountains. Four blocks of bighorn sheep occupied the same area but there ever was any trouble between the ____________ and the ____________.

7. Sarah practices on the piano every morning while Tom tries to play tennis alone. One day Tom asked Sarah to play with him and she said, "I can't, it would make me sick to play. ""Playing ____________ won't hurt you," said ____________, "it's better for you than playing the ____________ so much."

8. Trout cannot live in water which is warmer than that of their cold native mountain streams, and they prefer flowing water to still water. In the government fish hatcheries the baby trout are kept in tanks in which the water is kept ____________ and ____________.

9. An old fairy tale tells of a little girl who was cured of telling falsehoods. A wise fairy clasped a diamond necklace about the little girl's throat. Whenever she said anything that was not true, the diamonds turned to coal until the truth was told. This so shamed the ____________ that she finally learned to speak only the ____________.

10. Although Bert and John were brothers, they were not at all alike. John was big and strong and he had very few friends. On the other hand, ____________ was small and weak but he was ____________ by everyone.

11. The Eskimos sometimes live in homes made of blocks of ice. Since ice melts rapidly when exposed to a temperature above 32 degrees, it is necessary for the Eskimos to keep the temperature of the room below ____________ degrees to keep the house from ____________

12. All animals have some way of defending themselves from attack. The lion has sharp teeth, the rhinoceros has a hide so thick that scarcely anything can pierce it, while the deer can jump and run with great speed. If a single animal had the lion's ____________, the rhinoceros' ____________, and the deer's ____________, it would be hard to conquer.

13. Dumped into Ernest's corner of the attic are a roller skate and a much-read story-book. "Ernest likes me better than he likes you," said the skate. "Why, you poor skate, how mistaken you are," said the book. At this moment they heard from outdoors, "Come on, Ernest, let's scoot." The word "scoot" set the book's leaves a-trembling and sent a thrill of joy through the iron heart of the skate. But just then it began to rain hard, "Pitter-patter, pitter-patter," on the attic roof. This sent a thrill to the heart of the ____________ and a shudder to the heart of the ____________.

14. Soon Ernest came in and said, "Where is that old ____________ of mine?"
29-30 Johnny was walking down the sidewalk in a very peculiar way. He was saying, "If I step on this, I’ll feel fit as a fiddle." His steps were not of the same length, because he was trying not to step on a crack.

31-32 Leonardo da Vinci, the artist who painted "The Last Supper," was also an independent scientific thinker. We do not often think of him as both...and...

33-34 In a certain village a ton of coal costs 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.

33-35 Steel is made from iron and is therefore a manufactured product. Similarly brass is commonly made from copper and tin. This explains why we never hear of...and...mines.

37-38 The Iroquois and many other tribes of Indians were very fond of war. However, the Papago Indians of Arizona prefer peace and quiet. The former live in huts, while evergreens, as their name implies, are commonly made into fences.

41-42 The production of bodily energy involves a chemical process. Animal energy is derived directly from food. Cell activity involves the expenditure of energy. Therefore all...</p>

47-48 Some nations compose of good homes is a good nation. The best homes teach their children high ideals and good habits which tend to prevent sickness, poverty, vice, or crime. A nation which has few problems which would not be half cured if all...were good ones.

53-54 One of the fundamental aims of silent teaching is that of training each child to attain his highest level of achievement in speed without lowering his accuracy of comprehension. Neither...nor should be developed at the expense of the other.

55-56 A membrane which permits the passage of water through it but which does not permit substances dissolved in it to pass through is called a semi-permeable membrane. One which allows dissolved substances as well as...

58-59 We look to subdue. Boys like to go stamping through the woods, breaking their way through to new paths. Before this modern age, war and hunting offered opportunities for the expression of spirit. The lives of most of us today are more...Modern conditions make little demand on our tendencies.

72-73 Among the most characteristic and amazing properties of bacteria is their ability for rapid multiplication. It has been estimated that the descendants of one bacterium under continued favorable conditions would in two days number 200,000,000,000 and in three days weigh 28 tons. Fortunately, under ordinary conditions...does not proceed unchecked at such a rate.
### TEST 2. READING: WORD MEANING

#### DIRECTIONS: Draw a line under the word that makes the sentence true, as shown in the samples.

#### SAMPLES:
1. A rose is a [flower] home month river
2. A roof is found on a book [person] rock house word

1. New York is the name of a city. person ride river school
2. A shining thing is dull bright warm wide
3. Silk is for books dresses gardens horses letters
4. Joyful means even great happy short slow
5. Tears come usually when we drink eat talk walk cry
6. A horn makes pictures plans suits music tears
7. A limb is a part of a story table tree wall window
8. To stitch is to reward sew starve suggest tempt
9. The ocean is fire land paper water wood
10. To lift means to raise begin drive laugh watch
11. Cotton is used for baskets clothes dinners notes wheels
12. An American is a ball house person place table
13. A farmer works chiefly with fish coal plants rocks wood
14. Beaches are found on a barn coast cloak horse roof
15. A vessel is a boat bow cloth forest lady
16. To pronounce is to begin correct read speak stand watch
17. A couch is a kind of bed captain offer pick wall
18. To be free is to have liberty luxury patience religion revenge

#### TEST 2. READING: WORD MEANING—Continued

19. Frightful means discreet precise enthusiastic terrifying vigorous
20. Clever means bright neat peculiar stern upright
21. A snake is a foreigner gallery geography mold serpent
22. To inquire is to appear rest ask sleep watch
23. A remark is something that is destroyed slow held kept said
24. To despise is to bind effect hate obey observe
25. A parson is a minister pond porch prison robin
26. A monstrous thing is horrible modest musical useful torn
27. An argument is a discussion gully gymnasium penance perjury
28. Injury means charm experience haste harm limit
29. A misunderstanding is a kind of diadem disagreement desk magnet monastery
30. To scare is to sympathize tackle taunt terrify loan
31. A worshiper is a domestic fearful gracious religious steady
32. To sneer is to scoff scorch scratch scream scrub
33. To be brave is to be humble courageous frightful honorable ignoble
34. Contentment means notion provision rainbow satisfaction trifles
35. Unarmed means advantageous beggarly defenseless verbal wasteful
36. A purchaser is a flatterer buyer flirt hearer voter
37. A sawmill produces candy bride dew wire lumber
38. Commerce means speed station trade uncle weather
39. To grant means to get give see step wish
40. Violence usually causes benefit happiness harm knowledge respect
41. A literary person is a champion driver robber founder writer
42. A cave is a ballad dresser frontier grotto plea
43. An occupation is a kind of bath luxury activity relative vein
44. Thou means him her me they you
45. To reveal is to abuse disclose mess motor seek
46. Solemity means legibility magic neutrality seriousness undistinctness
47. A ballet is used in draining freezing grinding voting wrapping
48. Ambition means aspiration frivoliot foiling remorse slothful
49. To heed is to escape fancy hurry notice prove
50. Lifeless means animinate indefinite infamous undecided unduly
51. Dignified means loosely monstrous prominent spiritual stately
52. An opponent is an owl antagonist officer outlaw inlet
53. Tumultuous is boisterous helpless jocund lowly massy
54. Constancy means grudge morsel rainfall steadfastness warfare
55. Eternally means already always completely entirely squarely
56. Liberty means promotion robbery reproof scandal generosity
57. A legacy is an inheritance inscription ox ankle elf
58. A frenzy is a county growth majority robber rage
59. To forbear means to abstain knead ladle loan mimic
60. To be prompt is to be formal frightful hospitable punctual purified
61. Capacity refers to authority bloom climate habit volume
62. Shameful means dispassionate immaterial naïve scandalous tractable
63. Romantic means perversive sentimental shabby shameless spry
64. Meager means exceptional scant suspicious trivial vertical
65. Indefinite means congenial indebted lawless workmanship vague
66. To be elaborate is to be artless complicated headstrong plain ignored
67. Ceaseless means boisterous diminished discontented ended incessant
68. Unscrupulous means dishonest vagrant voluntary willful zigzag
69. To seer is to cut hurt jump tie twist
70. To quail is to attack cower expand hunt retreat
71. Submissiveness means daring cute heaviness wise meekness
72. Doleful means molten nameless oriental vague rueful
73. An associate is an adversary antagonist emigrant ensign ally
74. Covetous means avaricious bountiful gaudy gray-headed harassed
75. A reprobate is one who is very ugly cowardly wealthy wicked youthful
76. To impair is to brand commend damage mingle scrape
77. Suggestive means cadaverous inert loquacious spectral vertiginous
78. An instruction is a fugitive rebellion publication punishment hermit
79. Quiest means inactive angry perfect quick troublesome
80. Audacious means absurd adverse casual daring helasless

End of Test 2. Look over your work.
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**Full score for easier sentences not dictated.**

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1. That looks either John or Joe.
2. It is neither white nor black.
3. The truck carried a heavy cargo.
4. He served twenty years for his crimes.
5. It was the most beautiful of all.
6. A noun is the name of something when you name something.
7. I asked him which one he chose.
8. The patient feels more strongly every day.
9. The man whom you see is John.
10. They returned again to their homes.
11. I am respectfully yours.
12. We divided them among the four of us.
13. The baskets were all ready filled.
14. He was barely within speaking distance.
15. Each boy brought their own book.
16. That looks like either John or Joe.
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106. That looks like either John or Joe.
1 Little Red Riding Hood took cakes to her aunt cousin grandmother
2 Black Beauty was a crow dog horse
3 Billy Whiskers was a goat mongoose pony
4 The bear in "Snow-White and Rose-Red" was a fairy prince
5 Troubles came from the box of Arachne Pandora
6 The man cast into the lions' den was Daniel Jonah Joseph
7 Androcles removed a thorn from the foot of a bear dog lion
8 One of Robin Hood's followers was Duke of York John Silver Little John
9 Venus was goddess of love the chase the harvest
10 "Ben Hur" is famous for the chariot race long siege great storm
11 Dr. Dolittle lived in Polynesia Puddleby Pushmi
12 Thor lost his armor chariot hammer
13 Hans Brinker lived in Germany Holland Switzerland
14 Lancelot was a king knight sailor
15 Don Quixote was a king knight sailor
16 "Twenty Thousand Leagues Under the Sea" tells of Puck Captain Nemo Uncas
17 The word "courtship" reminds us of John Edwards Miles Standish Wm. Penn
18 "Huckleberry Finn" was written by Cooper Mark Twain Stevenson
19 "A Christmas Carol" was written by Dickens Thackeray Wiggin
20 The naiads were islands mountains nymphs
21 Sindbad was a dwarf knight sailor
22 "Treasure Island" tells about Long John Micawber Uncas
23 The people who went into exile were the Egyptians Jews Persians
24 Sir Launfal sought the Golden Fleece Holy Grail Silver Buddha
25 "Toby Tyler" tells about a circus horse race rooster fight
26 "Little Women" was written by Alcott Brown Sedgwick
27 Prometheus was set free by Hercules Phaeton Vulcan
28 The Swiss Family Robinson lived as merchants pioneers sailors
29 "The Last of the Mohicans" is about fairies Indians sailors
30 "The Prince and the Pauper" was written by Tarkington Mark Twain Thackeray
31 A king famous for his wisdom was David Filat Solomon
32 The Dead Sea is in Babylonia Palestine Syria
33 "The Call of the Wild" was written by Cooper Jack London Mark Twain
34 "Hamlet" was written by Coleridge Scott Shakespeare
35 Lord Fauntleroy always called his mother darling dearest honey
36 The story of "The Covered Wagon" is a story of life about 1780 1850 1925
37 "The Lady of the Lake" was written by Dryden Gray Scott
38 Shakespeare was noted for his novels plays short stories
39 The king ruling at the time of Jesus' birth was David Herod Solomon
40 Andromeda was rescued from the sea monster by Perseus Pygmalion Sir Cedric
41 Punch and Judy are actors elves puppets
42 Mrs. Wiggs was always cross happy despondent
43 Ichabod Crane is a character from Cooper Irving Mark Twain
44 "The Crimson Sweater" is a story of athletics love war
45 Mowgli grew up with Indians lions wolves
46 The god who supported the heavens was Zeus Atlas Hercules
47 Mecca was the birthplace of Buddha Mohammed Moses
48 Kenilworth was a castle city man
49 Gene Stratton Porter wrote books of adventure romance the sea
50 Ben Hur was a Greek Jew Turk
51 The scene of "Evangeline" is laid in Acadia Maryland Pennsylvania
52 "The Man Without a Country" was written by Aldrich Emerson Hale
53 Asgard is the home of the Greek gods Norse gods Roman gods
54 "Seventeen" was written by Kekall Mark Twain Tarkington
55 Pan played on a harp a lute pipes
56 Roland was a knight of Charlemagne Arthur Frederick the Great
57 Helen's Babies were Budge and Toddie Mary and Jane Tom and Pat
58 The blind poet was Keats Milton Shelley
59 "A Midsummer Night's Dream" is a play poem song
60 "Bob, Son of Battle" tells of a boy dog horse
DIRECTIONS: Draw a line under the word or phrase which makes the sentence true.

1. The Pilgrims came from England France Spain
2. Columbus made his first voyage to America in 1492 1620 1776
3. The canal which was opened for traffic in 1914 was the Erie Suez Panama
4. Columbus received his financial support from Portugal Spain Italy
5. The members of the American Legion are foreigners laborers ex-soldiers
6. The highest officer of a city is the alderman chief of police mayor
7. The greatest Northern general of the Civil War was Grant Sheridan McClellan
8. The man who invented the process of hardening rubber was Edison Ford Goodyear
9. The first French settlers in America were Raleigh Nelson Drake
10. A voter has to be at least 18 years old 20 years old 21 years old
11. The Spanish missions were Suez Panama Spain
12. The highest officer of a city is the alderman chief of police mayor
13. A famous early educator was Horace Mann Henry Clay Andrew Jackson
14. The discoverer of the Pacific Ocean was Balboa Magellan De Soto
15. The turning point of the Civil War was Gettysburg Pittsburg Landing
16. The American Revolutionary War began in 1765 1776 1783
17. The average number of children per American family is about 1 3 5
18. The boat which Columbus made his first voyage to America was the Santa Maria LaSalle
19. The American Revolution was fought in 1775 1783 1785
20. The population of the United States in 1920 in millions was about 55 90 110

Score: 20.34 32.54 42.15 55 68 80 95 82 77 147 162 178 190 212 225 238 250 262 274 296 308 321 333 336 339 340

Number right: 20
Difference: -

51 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98

6. The crime which brings the greatest punishment is larceny manslaughter murder
7. The Emancipation Proclamation was issued by Jefferson Lincoln Washington
8. The “Lusitania” was an airship a battleship an ocean liner
9. Our federal government refers to the government of the United States
10. The Virginia and Kentucky Resolutions opposed war Alien and Sedition Acts Canada
11. The Boxer Rebellion occurred in Japan Cuba China
12. The Missouri Question concerned slavery states’ rights reconstruction
13. Several famous debates were held between Lincoln and Clay Webster Douglas
14. The American Revolution was fought in 1765 1776 1783
15. The treaty is Missouri Ohio Texas
16. The Red Cross was founded by Clara Barton Jenny Lind Rockfeller
17. A famous early educator was Horace Mann Henry Clay Andrew Jackson
18. A city with especially well-planned streets is Boston Brooklyn Washington
19. A famous sea port of America was New York San Francisco
20. A voter has to be at least 18 years old 20 years old 21 years old
21. The Emancipation Proclamation was issued by Jefferson Lincoln Washington
22. The average number of children per American family is about 1 3 5
23. The members of the American Legion are foreigners laborers ex-soldiers
24. The Emancipation Proclamation freed slaves numbering in millions about 3 19
25. The Constitution assigns judicial powers to the federal government refers to the government of the United States
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40. The Emancipation Proclamation freed slaves numbering in millions about 3 19

Number right: 20
Difference: -
1. Christmas comes in December January July
2. The Eskimos are great fishermen, miners, and farmers.
3. The shape of the earth is flat, square, and round.
4. The largest bodies of water are called seas, oceans, and lakes.
5. Cotton grows on a bush, vine, tree, or rock.
6. The sun rises in the west, east, south, and north.
7. Silk is produced extensively in Australia, Japan, and New Zealand.
8. The Panama Canal is in Panama.
9. Animals provide us with wool, cotton, leather, linen, and hides.
10. Decayed plants help to make soils richer and heavier.
11. Granite is a kind of rock.
12. The camel is commonly found in Arabia.
14. A country having no seacoast is Switzerland.
15. Many tropical fruits are raised in Africa.
16. A group of islands is called an archipelago.
17. Much tropical fruit is raised in Africa.
18. A principal lake section of the earth is the Caspian Sea.
19. The largest river in the world is the Amazon River.
20. The perimeter of the earth around the sun is its axis orbit diameter.
The body is covered by muscles, bones, skin.

Tobacco is especially harmful to young children and women.

A poor food for a child’s breakfast is milk, bread, beans.

The heart pumps water and air.

The nerves of the eye are stimulated by sound and light.

The heart is found in the chest spinal column.

Muscle action is controlled by the nerves bones blood vessels.

Peanuts are eaten largely for their fats sugar proteins.

The two upper cavities in the heart are the atria ventricles.

Upper lips are the powerful muscles of the body.

The principal part of the nervous system is the spinal column.

The bursting of a blood vessel in the brain causes a hemorrhage.

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7. Muscles bones blood vessels.
8. Peanuts are eaten largely for their fats sugar proteins.
9. The two upper cavities in the heart are the atria ventricles.
10. Upper lips are the powerful muscles of the body.
11. The principal part of the nervous system is the spinal column.
12. The bursting of a blood vessel in the brain causes a hemorrhage.
1. Charles has 6 brown rabbits and 5 white ones. How many rabbits has he?
   Answer

2. At a school picnic, 9 boys and 15 girls went swimming. How many went swimming?
   Answer

3. Jim has 3 marbles, John has 8, and Bill has 9. If they put them all together, how many will there be?
   Answer

4. A hen had 9 chicks but 3 of them died. How many did she keep?
   Answer

5. Mrs. Jackson bought 10 shares of Golden Oil at par ($80). No dividends were paid, and at the end of two years she sold for $23 a share. Not counting brokerage charges and interest, how much had she lost?
   Answer

6. How much will 12 gallons cost at 21 cents a gallon?
   Answer

7. Mr. Jones bought a new car for $975. How long will it take him to pay for them?
   Answer

8. A recipe calls for 5 lb. of white flour to 3 lb. of graham flour. How much white flour must be used to make 16 lb. of such a mixture?
   Answer

9. An insurance policy paid the street-car fare for 5 days. The fare is 21 cents a day. How much change should he receive from a half dollar?
   Answer

10. A box of 12 dozen oranges cost a dealer $4.80. He sold them at 6 cents on a half-dozen. How much does he make on each dozen oranges?
    Answer

11. In each 21 pounds of milk there is a pound of milk sugar. How many pounds of milk sugar are there in 1800 lb. of milk?
    Answer

12. In 20 bushels of walnuts. How many bushels of walnuts?
    Answer

13. A recipe for lobster salad read, ‘’with two cups of lobster meat use 1/4 cup of chopped celery.’’ How much chopped celery should be added to 5 cups of lobster meat?
    Answer

14. A box of 12 dozen oranges cost a dealer $4.80. He sold them at 6 cents on a half-dozen. How much does he make on each dozen oranges?
    Answer

15. A recipe calls for 1/2 lb. of bacon for a 5-day trip. How much did that allow for each day?
    Answer

16. A man dug 60 bu. of potatoes from 3 acres of ground. At this rate, how many bushels should he get from 4 acres?
    Answer

17. A recipe calls for 1/2 lb. of bacon for a 5-day trip. How much did that allow for each day?
    Answer

18. Charles has 6 brown rabbits and 5 white ones. How many rabbits has he?
    Answer

19. A recipe calls for 1/2 lb. of bacon for a 5-day trip. How much did that allow for each day?
    Answer

20. Jim has 20 cents to spend for marbles. He is going to buy 2 at 3 cents each and spend the remainder for 2-cent marbles. How many can he get altogether?
    Answer

21. When oranges are 2 for 5 cents, how many can I buy for 60 cents?
    Answer

22. Milk sells at 12 cents a quart. At this rate, how much will 12 gallons cost?
    Answer

23. When $1.50 will buy 5 lb. of mixed nuts, how much will $2.40 buy at the same rate?
    Answer

24. Tom has just 4 weeks of 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?
    Answer

25. Frank gets 30 cents for every $1.50 magazine subscription that he sells. What per cent is his commission?
    Answer

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29. A man dug 60 bu. of potatoes from 3 acres of ground. At this rate, how many bushels should he get from 4 acres?
    Answer

30. A boy made $1.60 by buying apples at 6 for 8 cents and selling them 3 for 8 cents. How much did he sell?
    Answer

End of Test 9. Look over your work.
DIRECTIONS: 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.

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<td>Answer</td>
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<td>Answer</td>
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Go right on to the next page.
The graph below shows, year by year, the amount of $1.00 invested at 4% interest compounded annually.

What is a dollar worth at the end of the 12th year?

Answer =

Multiply

\[ \begin{array}{c}
2 \times 3 \text{ yd.} 2 \text{ ft.} 4 \text{ in.} \\
6794 \\
4008
\end{array} \]

Find the volume of this cylinder.

\[ \text{Volume} = \frac{\pi r^2 h}{3} \]

Find the length of side \( MN \).

\[ MN = \sqrt{20^2 + 15^2} \]

Find the average of

\[ \begin{array}{c}
7.53 \\
9.47 \\
8.63 \\
9.02
\end{array} \]

\[ (49) \]

Find the amount due at maturity.

\[ \text{Principal} = \$150 \]

\[ \text{Rate} = 7\% \]

\[ \text{Time} 1 \text{ yr.} 6 \text{ mo.} \]

\[ \text{Find amount due at maturity.} \]

\[ \text{Answer} = \]

\[ (50) \]

Add

\[ \begin{array}{c}
7a^2 \\
-4a^2
\end{array} \]

\[ (51) \]

Multiply

\[ \begin{array}{c}
6794 \\
4008
\end{array} \]

\[ (52) \]

Multiply

\[ \begin{array}{c}
6794 \\
-6
\end{array} \]

\[ (53) \]

\[ (49)^3 = \]

\[ (54) \]

\[ 2 \times 3 \text{ yd.} 2 \text{ ft.} 4 \text{ in.} \]

Find the volume of this cylinder.

\[ \frac{\pi r^2 h}{3} \]

Write this expression in the simplest form:

\[ -30y + ( -6y ) \]

\[ (55) \]

\[ (56) \]

\[ (57) \]

\[ (58) \]

\[ (59) \]

\[ (60) \]

To the Examiner. Do not administer this test without first reading carefully the Directions for Administering.
**SAMPLE:**

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

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. 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 noise over her head. She looked up, and what do you think she saw? Up there in the tree was a squirrel—was the very thing she had always wanted to see, a

3. Jack ran into the playroom and got his top and drum. His mother said, "What are you going to do?" "I am going to play drums with the other boys," said Jack.

4. When the old hen found a nice worm she would say, "Cluck! Cluck!" and the little chicks would come running to her. The that got to her first got the for its lunch.

5. The king gave a party for his baby daughter. All of the fairies came and brought gifts except one. That one was wicked and said that when the baby was fifteen years old she would fall asleep for a hundred years. It made the very sad to think of any harm coming to his

6. 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 her mother gave it to her. Now, every time Jane the floor she looks carefully under the bed for another.

7. Bert raised lettuce, peas, and radishes in his garden. He sold the lettuce and radishes and gave the to his mother.

**TEST 1. READING: PARAGRAPH MEANING**

13-14 John's father hurried to his office soon after eating breakfast, but before going he told John to pull all the weeds in the garden and mow the lawn. When he returned that evening, after a hard day's work, he found the still growing in the garden and the uncut.

15-16 Mary's doll and picture book were quarreling. "Mary loves me better than she loves you," said the doll. "No, she loves me the better," said the picture book. When Mary heard them, she said, "You are both mistaken. I one of you as much as the other.

17-18-19 When night came, I went into a cave where I thought I might rest in safety. I closed the narrow entrance of the cave with a rock to keep out the bears which were about. But I could not sleep for thinking of the danger that any of them might be able to push the away from the entrance to the

20-21-22 Bessie hunted for a fairy everywhere, but finally, quite discouraged, she sat down and rested her tired little head against the big brown root of her favorite tree. It was such a friendly tree that it seemed there ought to be a fairy on every bough. She peeped to see and spied just one teeny-weeny fairy; but, as you know, even one fairy may be pretty nice company; so Bessie climbed the and reached out to the who walked right up her arm and sang a little song in her ear. Later Bessie told her mother all about it, and Mother said, "I guess you were

23-24 Whenever many men dwell together in fellowship, one must be leader and the others must yield him obedience or everything will go wrong. Thus thought the outlaws of Sherwood; so one day they met together and chose Robin Hood as their. When he had been chosen, they all took a great oath that they would his commands.

25-26 In parts of Mexico water carriers are to be seen going to and from the fountain in the plaza with great jars of clay holding many gallons of water. There are no pipes or wells to supply the houses, and all the used by the families has to be brought from the

*This Profile Chart is the table of norms for the Advanced Examination.

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**TABLE:**

<table>
<thead>
<tr>
<th>Test Col.</th>
<th>Test 1 (Reading)</th>
<th>Test 2 (Language)</th>
<th>Test 3 (Writing)</th>
<th>Test 4 (Listening)</th>
<th>Test 5 (Literature)</th>
<th>Test 6 (History)</th>
<th>Test 7 (Science)</th>
<th>Test 8 (Mathematics)</th>
<th>Test 9 (Reasoning)</th>
<th>Test 10 (Comprehension)</th>
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* Grades defined as in Table 1 of the Directions for Administering. **Educational Ages above this point are extrapolated values. See Guide for Interpreting for explanation of vertical lines.

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**DIRECTIONS:** Write JUST ONE WORD on each dotted line.

---

**READING DICTATION:**

Go right on to the next column.

---

Turn the page and go right on.
27-28 Herbert had three balloons, a red one, a blue one, and a yellow one. The red one burst.

31-32 A Nevada schoolgirl once wrote, "A river is a dry sandy gulch in which there is sometimes water." This is not a bad description of a Nevada river, for in a desert country like that, river beds are buried during most of the year.

34-35 Sand is rock ground fine. The milky white sand that cover our beaches by the sea shore have been made by the restless waves which in the course of long years have ground the rocks into fine particles.

37-38 While our earth has only one moon, there are other planets which have moons. Some have two or three and Jupiter actually has nine. If there are people living on the planet Jupiter and if they write letters, it is possible that many of us will receive them.

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

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

55 Distant trees seem bluer than similar trees which are near. If you were to paint a picture, you would mix yellow in the green for those trees which were near than you would for those which were far away.

68-69 Rapid development of the lumbering industry of the Pacific Northwest has come about since that time and has led to the destruction of many of the forests of the region that were once so valuable to the people of the region.

69-70 The eagle scream in her laudations of the father of her country life provides.

79-80 "A man of the weaker sex made the eagle scream in her laudations of the father of his country." In plain English this is equivalent to, "A woman rode a horse."
1. Ice is made of __________.
2. A nest is a bird's __________.
3. A hungry person is most in need of __________.
4. A castle is a __________.
5. A roof is found on a __________.
6. A thing that is splendid is very __________.
7. To exclaim is to __________.
8. To accomplish means to __________.
9. Moisture is commercial __________.
10. A lens is made of __________.
11. A can is a __________.
12. A thing that is evil is __________.
13. An umbrella is a __________.
14. A rivet is much like a __________.
15. A hamlet is a __________.
16. To forewarn is to __________.
17. A thing that is evil is __________.
18. To labor means to __________.
19. To plan is to __________.
20. To assist is to __________.
21. To detach is to __________.
22. To obstruct is to __________.
23. To plan is to __________.
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100. To replace is to __________.
DIRECTIONS: Draw a line under the word or phrase that makes the better sentence, as shown in the samples.

SAMPLES:

Apples are good.
He told me.

1 He isn't no better than you.
2 He don't know anything.
3 Please lay the book down.
4 He is more braver than I.
5 I don't like those apples.
6 The woman was almost drowned.
7 These things are a scandal.
8 I am crazy about a good circus.
9 That man has written three books.
10 Please, may I go to the movies?
11 The woman was almost drowned.
12 She looked beautifully today.
13 He is more braver than I.
14 The woman whom you saw is my mother.
15 Had I been there, I would have gone.
16 He has fallen and hurt himself.

Go right on to the next column.

17 I could have done it better.
18 The fog is raising slowly.
19 She was the most beautiful of all.
20 The play is over with now.
21 The gentle climate will be good for us.
22 He was bound that he would go.
23 She is almost the prettiest I have ever saw.
24 He burst a blood vessel.
25 Her and I are going down town.
26 I played both with John and James.
27 Get off of the car at First Avenue.
28 It is us who have done it.
29 If I was you, I should go.
30 Among us two there has been no trouble.
31 She dances very gracefully.
32 The locomotive is very powerful.
33 It is above more than a mile away.
34 It is neither true nor false.
35 Has the whistle blown?
36 You should eat regular.

Go right on to the next page.

37 He had an appointment with the president.
38 It can hardly be true.
39 But don't forget, Don't forget.
40 He is too dumb to learn anything.
41 Don't blame me for that.
42 It was I who saw.
43 He is the ablest king in the world.
44 He had not been there long until I came.
45 He is enthusiastic about the idea.
46 We all flew from the enemy.
47 They both resemble each other.
48 The principle is in his office.
49 It is now evident why he left.
50 Ideals should be acquired early.
51 They all unanimously agreed to go.
52 The flock of fish swam into the net.
53 My parents were both equally anxious.
54 Minors are not fitted to vote.
55 False reports have injured his character.

Go right on to the next column.

56 Why cherish a vain hope?
57 I am in search of a friend.
58 Send this memorandum to the president.
59 They arrived with hardly any baggage.
60 I wish it was true.

End of Test 4. Look over your work.

Score: 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136

Difference: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136

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DIRECTIONS: Draw a line under the word that makes the sentence true, as shown in the samples.

SAMPLES:
A giant is a big dog man boat.

The Bible is the name of a place country book.

1. "Sleeping Beauty" is a story of fairies horses rabbits.
2. The glass slipper belonged to Cinderella Goldilocks Rebecca.
3. Whenever King Midas touched anything, it turned to gold money silver.
4. "The Little Lame Prince" tells about a brownie giant fairy.
5. "King Out, Wild Bells" is about a fire cowbells New Year's.
6. Robin Hood was an archer Indian elf.
7. The number of apostles was 3 7 12.
8. After death the Indians went to the Elysian Fields Happy Hunting Grounds.

9. A gnome is a kind of dwarf giant priest.
10. Goliath was slain by David Joseph Samson.
11. Huckleberry Finn's chum was Artful Dodger Black Dog Tom Sawyer.
12. The theme of "Uncle Tom's Cabin" is poverty slavery taxation.

14. The author of "Evangeline" is Bryant Longfellow Whittier.
15. A person who sought for the Golden Fleece was Balder Jason Siegfried.
16. The people Moses led across the Red Sea were Arabs Hebrews Mohammedans.
17. William Tell was an archer orator officer.
18. The home of the Greek gods was Asgard Mount of Olives Olympus.

Go right on to the next column.

19. "Little Women" was written by Sewell Eliot Alcott.
20. Long John Silver is a character in "Kim" "Robin Hood" "Treasure Island".
21. The Pharaohs were rulers of Egypt Greece Persia.
22. When the Nürnberg stove was opened, it was found a boy paper treasure.
23. The Greek known as the crafty was Achilles Ajax Ulysses.
24. Don Strong of the Wolf Patrol was a boy scout forest ranger spy.
25. "Open Sesame" was said by Aladdin Ali Baba Sindbad.
26. Rebecca of Sunnybrook Farm lived with her aunts mother sisters.
27. The queen of the gods was Aphrodite Diana Juno.
28. "Hamlet" was written by Boswell Marlowe Shakespeare.
29. "Rab and His Friends" tells about a dog horse wolf.
31. Tom Sawyer lived by the Mississippi Delaware Columbia.
32. Penrod's companion was Harold Sam Jack.
33. A character in "Hiawatha" is Crowfoot Minnehaha Pocahontas.
34. A son of Eve was Abel Esau Jassiah.
35. "Treasure Island" tells about Black Dog Pigion Miss Hazy.
36. "The Odyssey" was written by Homer Milton Virgil.
37. "The Great Stone Face" was written by Cooper Hawthorne Stevenson.
38. Katrika lived in Holland Russia Switzerland.
39. David Copperfield was a schoolboy soldier statesman.

Go right on to the next page.

40. King Arthur was most famous for his beautiful wife chivalry wars.
41. "The Call of the Wild" is a story of a beaver dog wolf.
42. The Mohammedan Bible is the Bhagavad-Gita Koran Zend-Avesta.
43. The person who brought about the ruin of Samson was Delilah Esther Ruth.
44. "Beautiful Joe" is the story of a boy dog horse.
45. Serooge is a character in "Oliver Twist" "David Copperfield" "A Christmas Carol".
46. Shylock is a character in "Hamlet" "King Lear" "Merchant of Venice".
47. The Little Colonel was Elsie Joyce Lloyd.
48. Sir Galahad was renowned for fearlessness purity strength.
49. "Hamlet" is a comedy tragedy pantomime.
50. The "Man for the Ages" was Washington Lincoln Wilson.
51. "Oliver Twist" tells of life in the country navy slums.
52. Cooper wrote about animals fairies Indians.
53. Cherubim are a kind of angel chariot throne.
54. "Crossing the Bar" was written by Goldsmith Keats Tennyson.
55. "The Covered Wagon" was written by Hough Mark Twain Walpole.
56. "Sir Patrick Spens" is a ballad lyric myth.
57. A birthright was sold for a mess of potage by Esau Jacob Joseph.
58. "The Wizard of Oz" was written by Baum Barrie Kipling.
59. The Mohammedan religion originated in Arabia Egypt Persia.
60. Barbara Frietchie sympathized with the English South Union.

Go right on to the next column.

61. "Nevermore" was said by the raven red men parrot.
62. "The Last of the Mohicans" was written by Hawitha Mowgli Uncas.
63. The glad girl was Pollyanna Rebecca Sara Crewe.
64. The "face that launched a thousand ships" was that of Dido Guinevere Helen.
65. Coleridge wrote "Ancient Mariner" "Hiawatha" "Thanatosis".
66. Jules Verne wrote stories about animals criminals imaginary inventions.
67. Lorna Doone was rescued by a knight John Rid Robin Hood.
68. The exclamation made famous by Longfellow is Bravo! Eureka! Exhilarion!.
69. "Wild Animals I Have Known" tells about Lobo Moby Dick Yan.
70. Whitier wrote "Maud Muller" "The Bells" "Michael".
71. The Deacon's Masterpiece was a boat sermon carriage.
72. Burns wrote "The Lady of Shalott" "Tam O'Shanter" "The Courtin'".
73. One of the three musketeers was Bertrand Richelieu Aramis.
74. The Spy was Dunwoodie Harvey Birch James Morrison.
75. The author of "Paradise Lost" was Browning Holmes Milton.
76. The author of "Lay of the Last Minstrel" was Scott Shakespeare Tennyson.
77. "The Prince and the Pauper" tells about Edward Tudor James Stuart Richard III.
78. Gethsemane was a garden god mountain.
79. "Lucy Gray" was written by Longfellow Tennyson Wordsworth.
80. The Furies came from the blood of Jupiter Uranus Vulcan.

End of Test 5. Look over your work.
DIRECTIONS. Draw a line under the word or phrase which makes the sentence true.

1. The queen who gave money to Columbus was Victoria Mary Isabella
2. A leader of the Quakers was Stuyvesant Lord Baltimore William Penn
3. Daniel Boone explored the region of Oregon Texas Kentucky
4. Robert Fulton invented the steamboat ocean cable steam engine
5. One of the vessels of Columbus was the Isabella Santa Maria Black Hawk
6. Early California settlers from our eastern states were seeking liberty lands gold
7. Mount Vernon was the home of Jefferson Washington Lincoln
8. The Mississippi was discovered by Balboa DeSoto Vespucci
9. Eli Whitney is noted for his invention of the spinning jenny cotton gin telegraph
10. An example of a county officer is a mayor an alderman a sheriff
11. The early Spanish explorers sought chiefly gold liberty tobacco
12. Coinage refers to religion money warfare
13. The first white man to see the Pacific Ocean was Balboa Cabot Vespucci
14. The second war between our country and England began in 1812 1848 1865
15. New York was at first called New Haven Schuykill New Amsterdam
16. Washington’s winter quarters for 1777–78 were at Trenton Philadelphia Valley Forge
17. Virginia was settled by English French Spanish
18. The Civil War practically ended with the surrender of Lee Jackson Johnston
19. The Armistice was signed on Nov. 11, 1918 Nov. 21, 1918 Dec. 22, 1918
20. Foreigners can become citizens by habeas corpus naturalization purchase
21. The Wright Brothers remind us of airplanes steel manufacturing tariff laws
22. Florida was first explored by DeSoto Balboa Ponce de Leon
23. The Quakers founded colonies in Virginia Massachusetts Pennsylvania
24. The appearance of a city is helped most by billboards shade trees telegraph poles
25. Ballots are used in warfare fishing elections
26. Roger Williams was a colonizer judge merchant
27. Henry Clay was a great orator merchant inventor
28. The power of levying taxes is reserved to the President Congress the Cabinet
29. Labor unions enforce their demands by the strike referendum tariff
30. Perry was a hero of the World War Civil War War of 1812
31. Alsace-Lorraine is in Europe Asia South America
32. An example of an elected officer is a Congressman Supreme Justice postmaster
33. The Pueblo Indians were found in the Atlantic states Northeast Southwest
34. A traitor of the Revolutionary War was Arnold Hale Allen
35. The Spanish fleet, the Armada, was destroyed by Portugal France England
36. Foch was a general for the English French Germans
37. Lincoln was assassinated in 1861 1863 1865
38. The right to vote in the United States is denied to women non-taxpayers criminals
39. The battles of Lexington and Concord were fought in 1620 1775 1812
40. “The Star-Spangled Banner” was written by Alcott Burns Key
41. The number of amendments to the Constitution in 1929 was 13 16 19
42. The Monroe Doctrine deals with foreign colonization in Africa Asia America
43. Carranza was a Mexican Russian German
44. Sildell’s proposals might have prevented the Mexican War Civil War World War
45. Clara Barton is remembered as a writer singer nurse
46. Hamilton was killed in a duel with John Hay Aaron Burr Benedict Arnold
47. Goethals reminds us of the World War airplane Panama Canal
48. A German submarine sank the Lusitania Titanic Maine
49. Grant’s first campaign in the Civil War was in Virginia Maryland Tennessee
50. The Ordnance of 1877 provided for war a territorial policy a big navy
51. The number of judges in the United States Supreme Court is 6 9 12
52. Jefferson was followed as President by Madison Monroe Adams
53. The amendment giving women the right to vote was the 10th 18th 19th
54. Truckee-Carson is the name of a tariff law an irrigation project a treaty
55. Conservation of forests suggests to us the name of Wiley Goethals Pinchot
56. The U.S. Army in Europe at the end of the World War was in millions 1 1½ 2
57. The last Federalist President was Washington Adams Jefferson
58. Industrial pools are something like factories trusts railroads
59. The United States Supreme Court makes laws repeals laws interprets laws
60. After the World War Poland became a republic a monarchy an aristocracy
61. The negro population of the United States in 1920 in millions was 1 10 25
62. The Supreme Court cannot try cases of impeachment murder arson
63. One of the greatest of the Abolitionists was Jackson Garrison Clay
64. In 1815 European monarchs organized the Entente League of Nations Holy Alliance
65. England’s answer to the Boston Tea Party was a heavy tax tariff act blockade
66. The first French colonies in America were founded by Cartier Champlain LaSalle
67. The power of levying duties belongs to the President Supreme Court Congress
68. Corrupt officials are often checked by the recall referendum initiative
69. The national government closely regulates railways steel manufacturing farming
70. Justices of the Supreme Court receive office by election inheritance appointment
71. The New England Confederation did not include Plymouth Salem Rhode Island
72. The right of voters to propose new laws is called the initiative referendum recall
73. The raid at Harper’s Ferry was led by Scott Davis Brown
74. The Boxers were people of France Italy China
75. A leader in nullification was Maryland Missouri South Carolina
76. A famous educator was Horace Mann Eugene V. Debs William H. Seward
77. In 1860 our largest city was Boston Philadelphia New York
78. The United States entered the World War in 1914 1917 1918
79. Marconi is the inventor of the submarine printing press radio
80. A famous seaport of 1500 was Mecca Genoa Liverpool

The right of voters to propose new laws is called the initiative referendum recall.
DIRECTIONS: Draw a line under the word which makes the sentence true.

1. The sleds of the Eskimos are drawn by women horses dogs
2. The warmest season of the year in the United States is spring summer autumn
3. An important river of North America is the
   A. Mississippi B. Volga C. Plata
4. The month before November is October April September
5. Washington, D.C., is connected with mining shipping government
6. The largest divisions of land are called islands oceans continents
7. The nation using the most automobiles is
   A. United States B. Great Britain C. United States
8. One of the principal exports of China is
   A. tea coffee wheat
9. Pearls are obtained from
   A. ivory mines oysters
10. A state producing many grapes is
    A. Idaho California South Dakota
11. Cement is made from
    A. coke iron limestone
12. A state largely bounded by water is
    A. Vermont Minnesota Ohio
13. Paper comes chiefly from
    A. mines forests animals
14. Beets are used for making
    A. catsup sugar jellies
15. The ocean surrounding the North Pole is the
    A. Arctic Indian Antarctic
16. The regular rising and falling of oceans is called
    A. ocean currents tides geysers
17. A state having a very warm climate is
    A. Texas Oregon Wisconsin
18. A chief export of Japan is
    A. machinery silk meats
19. The zone nearest the poles is the frigid temperate torrid
20. A city noted for the manufacture of automobiles is
    A. Cincinnati Chicago Milwaukee

Go right on to the next column.

21. A state located in the mountain region is
    A. Iowa Colorado Michigan
22. Liverpool is a city of
    A. England France Spain
23. A country near the equator is
    A. Brazil United States Russia
24. The smallest continent is
    A. Australia Europe Africa
25. A valuable ornamental wood is
    A. mahogany pine spruce
26. A leading manufacturing state is
    A. Wyoming Massachusetts Texas
27. Many ships going from Cuba to New York carry steel sugar clothing
28. The Pyramids are located in
    A. Egypt Morocco Persia
29. Australia is a possession of
    A. Canada Great Britain United States
30. The country ranking highest in cotton production is
    A. Russia China United States
31. The ocean between the United States and China is the
    A. Atlantic Arctic
32. A principal crop of Russia is
    A. sugar cane wheat rice
33. An elevated table-land is called a
    A. plateau divide mountain
34. A country that has no seaport is
    A. Greece Belgium Switzerland
35. A great wheat market is
    A. San Francisco Kansas City Columbus
36. Chicago has become a large city chiefly because of its
    A. soil scenery location
37. The earth rotates on its
    A. axis path orbit
38. A country in which very few people can read and write is
    A. Persia Holland Denmark
39. Deltas are formed by
    A. winds ocean currents rivers
40. Longitude is measured in
    A. inches miles degrees

Go right on to the next page.

41. A man who searches for minerals is called a
    A. prospector explorer a discoverer
42. The most important kind of fishing on the Pacific coast is
    A. salmon halibut cod
43. The highest mountains in North America are the
    A. Rockies Ozarks Appalachians
44. The smallest states in the United States are
    A. West Southwest Northeast
45. The Volga is in
    A. Spain India Russia
46. An instrument which works by magnetism is
    A. the compass pump siphon
47. A country using much man power in transportation is
    A. China England United States
48. An important farm crop of the Pacific states is
    A. corn wheat tobacco
49. A product of quarries is
    A. granite sulphur cocoa
50. A rich mining country is
    A. Argentina Peru Brazil
51. Much African territory is controlled by
    A. Italy England Turkey
52. A clothing material coming from plants is
    A. mohair wool linen
53. The chief crop-producing country is the
    A. U.S. Argentine Mexican Republic
54. An important canal in Germany is the
    A. Welland Kiel Soo
55. Potash is a kind of
    A. mineral plant utensil
56. When it is noon in San Francisco, it is 2 P.M. in
    A. Berlin Chicago London
57. The Pennsylvania Railroad connects Chicago with
    A. New York Denver Omaha
58. California lemons compete with lemons from
    A. Egypt Italy Germany
59. One of the most common foods in Japan is
    A. fish mutton corn
60. The most irregular coastline of the U.S. is
    A. the southern western northeastern
61. The most densely populated part of Europe is the
    A. Eastern Northern Western

Go right on to the next column.

62. The Strait of Dover separates England from
    A. France Ireland Scotland
63. A lake port of the United States is
    A. Kansas City Pittsburgh Cleveland
64. The rainfall required for wheat raising is very heavy moderate very light
65. The largest city in South America is
    A. Buenos Aires Rio de Janeiro Valparaiso
66. Apples are a leading product in
    A. Florida California Washington
67. The principal navigable river of Germany is the
    A. Rhine Danube Rhine
68. The Asiatic country with the best educational system is
    A. Japan China India
69. The North Pole was first reached in
    A. 1850 1809 1921
70. Water power is chiefly an aid to
    A. navigation irrigation manufacturing
71. Distances from the equator are measured in
    A. latitude longitude altitude
72. The chief cause of tides is the attraction of
    A. moon planets sun
73. Relief maps deal mainly with
    A. elevation boundaries products
74. A breed of cattle most valuable for meat is
    A. Jersey Hereford Holstein
75. In which country would uniform climate be found?
    A. Russia China New Zealand
76. The most densely populated country in Europe is
    A. France Italy Belgium
77. A pest attacking apple trees is the
    A. boll weevil San Jose scale smut
78. Rotation of the earth divides time into
    A. days seasons years
79. The greatest number of degrees of longitude is
    A. 90 180 360
80. The largest city of Italy is
    A. Rome Genoa Naples

End of Test 7. Look over your work.

Number right__________________
Number wrong____4 = 2__________________
Difference__________________
DIRECTIONS: Draw a line under the word or phrase which makes the sentence true.

1. Teeth should be cleaned once a week twice a week twice a day.
2. The heart acts much like a camera pump sieve.
3. One of the warmest kinds of clothing is linen cotton wool.
4. A poor food for a school child's breakfast is tea milk toast.
5. The brain is located in the head abdomen chest.
6. We do not have to learn to write swallow read.
7. Dusty air is dangerous because it carries carbon dioxide oxygen germs.
8. Windows in sleeping rooms should be closed slightly open fully open.
9. A good food for a child's breakfast is cabbage prunes lamb chops.
10. Cold is passed from one person to another by germs drafts mosquitoes.
11. The most nearly ideal food is probably eggs potatoes milk.
12. Lockjaw often results from wounds made by rusty nails needles glass.
13. The lungs take from the air carbon dioxide nitrogen oxygen.
14. If your clothing catches on fire, you should run wrap in a rug call fire department.
15. The outer coat of a tooth is made of dentine enamel bone.
16. The stomach is part of the system of digestion nervous control muscular control.
17. A disinfectant is used to kill germs flavor food stop headaches.
18. A food containing much starch is vegetables bread butter.
19. Malaria is carried by mosquitoes.
20. Water may be entirely freed from disease germs by filtering freezing boiling.

Go right on to the next column.
DIRECTIONS: Find all the answers as quickly as you can. Write the answers on the dotted lines. Use the margins to figure on.

1. How many are 5 birds and 4 birds?
   Answer: 
2. Jack had 15 marbles and Bill gave him 6 more. How many did he then have?
   Answer: 
3. There are 9 birds in one flock and 8 in another. How many are there in both flocks together?
   Answer: 
4. Martha has 7 cents, Maude has 8 cents, and Sarah has 6 cents. How many cents have they together?
   Answer: 
5. Tom had $17, but Jane had only $8. How many more dollars had Tom than Jane?
   Answer: 
6. Oranges cost 5 cents each. At that rate, what will a half dozen cost?
   Answer: 
7. One day Ruth promised to pick 15 quarts of berries for her mother. By noon she had picked 8 quarts. How many quarts must she pick in the afternoon?
   Answer: 
8. Tom’s mother gave him 75 cents for groceries. He received 13 cents in change. How much did the groceries cost?
   Answer: 
9. At 10 o’clock, Mae went to her friend’s home with permission to stay five hours. At what time should she come home?
   Answer: 
10. Bert had 10 cents to spend for marbles. He paid 2 cents for one and 3 cents for another. How many marbles at 1 cent each could he buy with the remainder?
   Answer: 
---

11. Martha has saved $3.75. How many dollars more does she need to buy a coat which costs $45.75?
   Answer: 
12. At a sale, five-cent candy bars were sold at the rate of 3 for a dime. How many should Maude get for 30 cents?
   Answer: 
13. A plasterer worked 7 hours a day for 5 days. How much did he receive for his work if he charged $2 an hour?
   Answer: 
14. Kate pulled 48 radishes from her garden to sell. She put them into bunches of 12 radishes each. At 5 cents a bunch, how much should she get?
   Answer: 
15. The scale on an automobile road-map shows that 1 inch represents 20 miles. How far apart are two towns that are 3 inches apart on the map?
   Answer: 
16. Mr. Brown sold 11 calves for $102. What was the average price per calf?
   Answer: 
17. Ellen used 24 inches of ribbon in trimming a Christmas wreath. What part of a yard did she use?
   Answer: 
18. The trail to camp is 6/4 miles long. How far are some boys from camp who have traveled 4/4 miles along the trail toward camp?
   Answer: 
19. Candy was sold in 1/4 pound bags for 20 cents each. At the same rate what would a pound and a half cost?
   Answer: 
20. Harry worked from 9 o’clock in the morning until 5 o’clock in the afternoon except for a half hour at lunch time. How much should he receive, if he charged 30 cents an hour?
   Answer: 
---

21. Frances sold $156 worth of books. She received a commission of 40%. How much did she earn?
   Answer: 
22. In a class of 38 pupils, only 19 had perfect attendance records for a month. What per cent of all the class had perfect attendance records?
   Answer: 
23. If a man uses 25 gallons of gasoline in driving 375 miles, how far can he drive on 8 gallons, assuming that he will obtain the same mileage per gallon?
   Answer: 
24. When $3 will buy 5 yards of ging-ham, how much will 7 yards cost?
   Answer: 
25. John buys papers for $1.80 per hundred and sells them at 3 cents each. How much does he make on 250 papers?
   Answer: 
26. How much cheaper is a bill of $100 worth of goods bought at a 20% discount than one of the same amount bought at two successive discounts of 10% and 10%?
   Answer: 
27. A man’s automobile will go 110 miles on 10 gallons of gasoline. If gasoline costs 22 cents per gallon, what is the cost of the gasoline per mile?
   Answer: 
28. Ice is 0.2 as heavy as water. A cubic foot of water weighs 62.5 lbs. What is the weight of a cubic foot of ice?
   Answer: 
29. If 6 men can build a house in 180 days, how long will it take 8 men to build it?
   Answer: 
30. A broker charges $25 commission on every sale, plus 5% on over $200. What would be his commission on a $500 sale?
   Answer: 
31. Fred will sell his bicycle for $24. That is $4 less than it cost him. What did it cost him?
   Answer: 
32. How much more is earned each day by a man working 6 days for $45 than by a man working 5 days for $32.40?
   Answer: 
33. How many dollars’ worth of merchandise must a clerk sell at a commission of 2½% to earn a salary of $1,000 a year?
   Answer: 
34. A train makes a run of 159 miles in 7 hours. One trip it was delayed and made only 63 miles the first 4 hours. At what average rate per hour must it go the remainder of the distance in order to arrive on time?
   Answer: 
35. A certain house was assessed at $5,000. The tax on it was $125. What was the tax rate?
   Answer: 
36. Tulip bulbs should be planted 4 to the square foot. A square plot should be how many feet on a side in order to hold 36 bulbs?
   Answer: 
37. What actual rate of interest would be obtained if you bought 6% preferred stock at $75 per share? (Par value $100.)
   Answer: 
38. For $90 each a man bought 5 shares of a preferred stock paying 5%. (Par value $100.) After his first dividends he sold his stock for par value. Ignoring brokerage charges, how many dollars did he make on the transaction?
   Answer: 
39. If they have the same thickness, a pancake 6 inches in diameter is how many times as large as one 3 inches in diameter?
   Answer: 
40. A house and lot were valued at $5,000. The taxes amounted to $60 a year. It cost $200 annually for depreciation and incidental expenses. For what must it rent per month in order that the owner may clear 8 per cent on its value?
   Answer: 
End of Test 9. Look over your work.
DIRECTIONS: 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.

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For the following examples, choose the correct answer:

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According to the graph, what is the approximate height in feet of:

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<th>UPPER YOSEMITE</th>
<th>VICTORIA</th>
<th>SHOSHONE</th>
<th>LOWER YELLOWSTONE</th>
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| NIAGARA ___________________________ | Upper Yosemite ___________________________

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<td>⅔</td>
<td>4 6</td>
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Sales amount to $5240. Commission rate is 10%. Find amount of commission.

Answer =

Turn the page and go right on.

(47) Add

% 70%

Yio is 15% of what number?

Answer =

(48) Add

3 Tons 1000 lb.
4 Tons 500 lb.
7 Tons 1750 lb.
2 Tons 800 lb.

4.65 is what percent of 15.50?

Answer =

(49) \[ \frac{239}{144834} \]

(50) \[ \frac{144834}{239} \]

(51) 45 is 15% of what number?

Number =

(52) \[ (4)^2 = \]

\[ 252 \div 65128 \]

(53) Add

7

9

-8

-9

Answer =

(54) \[ 252 \div 65128 \]

(55) How many degrees are there in angle \( \angle BAC \)?

Answer =

(56) Find the value of \( F \) in the following expression if \( k \) equals 8 and \( h \) equals 5.

\[ F = \frac{k h^2}{4} \]

\[ F = \]

(57) Multiply

42

-10

Answer =

(58) \[ \sqrt{15129} \]

(59) Simplify the following expression:

\[ 8x + 6y - (2x - 3y) \]

Answer =

(60) Find the volume of this figure.

Answer =

End of Test 10. Look over your work.
Measure of Merit of Teachers.
   Edward C. Elliott, University of Wisconsin.

Standards and Ideals for Judging the Quality of Teaching Service.
   W. H. Homes, Superintendent of Schools, Mount Vernon, New York.

Fourteenth Year Book.
   Method of Measuring Teachers Efficiency.

Question Sheet for Teachers.
   Baltimore School Survey.

The Teacher's Self-Measurement.
   J. A. Beattie, Lincoln, Nebraska.

Superintendents Rating Scale of Teachers.
   Wm. C. T. Adams, Superintendent of Schools, Keene, New York.

Score Card for Rating Student Teachers.
   Department of Education, Louisiana State Normal School.

Rating Sheet.
   H. G. Wehe, Graduate student under direction of
   Dr. R. A. Schwegler, University of Kansas.

Evaluation of Teachers.
   Educational Council of New Hampshire.

Self-Improvement of Teacher's Through Self-Rating.
   A New Scale for Rating Teachers Efficiency.
   H. O. Rugg, Teachers College, Columbia University.

Summary of Provisions Relating to the Certification of Teachers.
   Delaware School Code, April 1919.

Teachers Rating Card.
   Kansas City Public Schools, Kansas City, Missouri.

Faculty Rating Sheet.
   Appointment Bureau, University of Kansas.

Teacher Personality.
   Institute for Public Service, 51 Chambers Street,
   New York City.
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  Ernest C. Witham, Superintendent of Schools, Southington, Connecticut.

Standards Employed in the Determination of Teaching Efficiency.

Things Other Than Intelligence That Effect Progress in High School.
  A. H. Turney, Department of Education, Kansas University.

Score Care for Measuring Habits of Good Citizenship.
  Chassell and Others, Teachers College Record.

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