

ARITHMETIC

Tuesday, June 15, 1920—9.15 a. m. to 12.15 p. m., only

Write at top of first page of answer paper (a) name of school where you have studied, (b) grade of work completed in arithmetic.

The minimum requirement is the completion of the work of the seventh grade in arithmetic, as outlined in the 1910 syllabus for elementary schools.

Answer the first five questions and seven of the others. Reduce each result to its simplest form and mark each answer Ans.

Questions 1, 2, 3, 4 and 5 are given as tests for accuracy; no credit, therefore, will be allowed unless the answer is correct.

1 Mental test on separate sheet. [10]

2 Copy and add the following: [5]

34.5; 783.2; 29.02; 300.45; 41.004; 283.15; 12.125;
10.001; .005; 1050.4; 2064

3 If 5 tons of coal cost \$60, how much will $12\frac{1}{2}$ tons cost at the same rate? [5]

4 What is the product of 108 and $3\frac{1}{8}$? [5]

5 From $37\frac{7}{8}$ subtract $29\frac{1}{2}$. [5]

6 On seven successive days at noon the thermometer registered 80 degrees, 76 degrees, 82 degrees, 79 degrees, 85 degrees, 90 degrees and 88 degrees; what was the average temperature for the week? [10]

7 Find the cost of laying a concrete walk 8 rods long and $5\frac{1}{2}$ feet wide at 32¢ a square foot. [10]

8 An article is listed in a catalog at \$50; this price is subject to a 25% discount and a further discount of 10% for cash. What is the cash sale price of the article? [10]

9 Make out a receipted bill for the following articles bought from E. C. Gray who is doing business in your home town: 4 pounds sugar @ 20¢ a pound; $1\frac{1}{2}$ pounds rice @ 16¢ a pound; $2\frac{1}{4}$ pounds butter @ 72¢ a pound; 14 dozen eggs @ 76¢ a dozen. [10]

10 If pencils are bought at the rate of 3 for 2 cents and sold at the rate of 2 for 3 cents, how much will the profit be on 72 pencils? [10]

11 How many cubic feet of silage will a cylindrical silo 14 feet in diameter and 30 feet high hold? [10]

12 A note for \$150 which does not bear interest is discounted at a bank 30 days before it is due, the rate of discount being 6%. A suit of clothes at \$75 and an overcoat at \$45 are purchased with the proceeds. How much money remains? [10]

13 A rectangular park is 40 rods long and 30 rods wide; if A walks the length and breadth of the park and B walks from one corner direct to the diagonally opposite corner, how many rods farther does A walk than B? [10]

14 A commission merchant charged a farmer 8% commission for selling his produce; if he remitted to the farmer \$3910 for a sale, what was the selling price of the produce? [10]

15 A man buys a house for \$4200 and spends \$800 on repairs; he then sells it for \$5500. What is his gain per cent? [10]

ARITHMETIC MENTAL TEST

4

[Eight minutes allowed for this test]

Tuesday, January 20, 1920—9.15 a. m. to 12.15 p. m.

*Answer all parts of this test. Write each answer on the line marked
Ans. No credit will be allowed unless the answer is correct.*

- a A door is 7 feet in height; the ratio of the height of the room to the height of the door is as 2:1. How high is the room? [2]

Ans. _____

- b A flower bed in the form of a rectangle is 4 yards long and 3 yards wide; how long is a row of flowers extending from one corner to the corner diagonally opposite? [2]

Ans. _____

- c If a man has \$1000 invested and receives \$60 a year in interest, what is the rate of interest? [2]

Ans. _____

- d How many squares $\frac{1}{2}$ inch on a side can be cut from a square 4 inches on a side? [2]

Ans. _____

- e At \$1 a thousand cubic feet, how much will 5800 cubic feet of gas cost? [2]

Ans. _____