

ARITHMETIC

Tuesday, January 20, 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]

3.75; 84.375; .49; 7860.5; 26.625; .338; .92; 918; 54627; 83.125; 325.5; 426

3 $107\frac{1}{2} \div 1\frac{1}{2} = ?$ [5]

4 From the sum of $3\frac{1}{2}$, $2\frac{1}{2}$ and $7\frac{1}{2}$ subtract 3.875. [5]

5 Multiply the sum of $2\frac{1}{2}$ and $5\frac{1}{2}$ by the difference between $7\frac{1}{4}$ and $3\frac{1}{4}$. [5]

6 A man lost 20% of his money and then lost 10% of the remainder; if he had \$3600 left, how much did he have at first? [10]

7 An automobile costing \$1125 was sold for \$1350; what was the per cent of profit? [10]

8 A cubic foot of copper weighs 552 pounds; how many ounces does 1 cubic inch of copper weigh? [10]

9 The record of a herd of 24 cows showed a yield of 3240 pounds of milk per week; how much milk would be produced per week if 10 cows equally good should be added to the herd? [10]

10 Which is the better investment and how much on each \$1000 invested, 6% stock selling at 90 or 5% stock selling at 70? [10]

11 A cylindrical tank is 3 feet long and 14 inches in diameter; how many gallons of gasoline will it hold? [$\pi = 3\frac{1}{2}$; one gallon contains 231 cubic inches.] [10]

12 At \$22.25 a thousand, how much will 15,875 bricks cost? [10]

13 A man owns thirteen \$500 United States 4½% Liberty Bonds; how much will he receive annually in interest from these bonds? [10]

14 A commission merchant sold a consignment of 400 dozen eggs at 70¢ a dozen; if his commission was 5% and the charges for freight and cartage amounted to 1½¢ a dozen, what amount should he remit to the shipper? [10]

15 On October 20, 1919, James Price bought of George Kent, Chicago, Ill., the following goods: 5½ yards of elastic at 16¢ a yard; 3½ yards of gingham at 96¢ a yard; 7 yards of silk braid at 17¢ a yard; 4 sheets at \$2.40 each; 8 pillow cases at 95¢ each; 6 towels at \$1.35 each. Make out the receipted bill. [10]