

215TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Tuesday, June 20, 1916—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 Write in figures six hundred forty-three and seven hundredths and multiply this number by nine thousand six. [5]

3 Add

$$\begin{array}{r} 73862 \\ 45094 \\ 17678 \\ 69430 \\ 26493 \\ 70965 \\ 58769 \\ 32654 \\ 86429 \\ 63802 \\ 52671 \\ \hline 63787 \end{array}$$

[5]

4 Divide 555.808 by .7895 [5]

5 From $7\frac{1}{4}$ subtract the sum of $\frac{5}{8}$, $\frac{7}{8}$, $\frac{3}{8}$. [5]

6 A baseball club won during the season 60 games and lost 36 games; what per cent of the games played were won? [10]

7 Money deposited in a certain savings bank on July 1 or on Oct. 1 draws interest at 4% a year if left on deposit till Jan. 1 following. A boy deposited \$25 on July 1, 1915 and \$35 on Oct. 1, 1915; how much did he have to his credit after the interest was added Jan. 1, 1916? [10]

8 The full railway fare between Syracuse and Albany is \$2.96; find the total cost of the tickets for a family consisting of father, mother and three children, if each child travels on a half fare ticket. [10]

9 How many gallons of gasoline will a cylindrical tank hold if it is $3\frac{1}{2}$ feet in diameter and 4 feet high? [$\pi=3\frac{1}{7}$. One gallon = 231 cubic inches.] [10]

10 A warship makes the following record in 4 hours: first hour, 19.5 miles; second hour, 21.75 miles; third hour, 22.2 miles; fourth hour, 22.9 miles. What is the average rate of speed per hour? [10]

11 A room has a hardwood floor 12 feet by 15 feet partly covered by a rug 9 feet by 12 feet; at $2\frac{1}{2}$ cents a square foot, find the cost of varnishing the part of the floor not covered by the rug. [10]

12 Make out a receipted bill such as A. B. Jones, a plumber, might send you for the following: 12 feet galvanized pipe at 10 cents a foot; 6 galvanized elbows at 11 cents each; 1 faucet at \$1.25. The charges for labor were 75 cents an hour for $3\frac{1}{2}$ hours. [Date the bill today.] [10]

13 A man owned a house worth \$6000; he insured it for three years for 75% of its value, the insurance rate being \$1.50 per thousand a year. How much premium did he pay? [10]

14 How much more does a table marked \$16.50 with a discount of 20% cost than one marked \$11.75 without discount? [10]

15 A boy in a shop finds that he can dress a pine board in 5 minutes if he uses a smoothing plane; if he uses a machine planer he can dress a board of the same width but four times as long in 15 seconds. How many times as many boards can he dress on the machine as he can with the hand plane? [10]

16 A shirt waist requires 3 yards of material at 15¢ a yard, one spool of thread at 5¢ a spool and $\frac{1}{2}$ dozen buttons at 20¢ a dozen; if the charge for labor is 20¢ an hour for 9 hours, what is the gain if the waist is sold for \$4? [10]

ARITHMETIC MENTAL TEST

[Eight minutes allowed for this test]

Tuesday, June 20, 1916—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 carpenter received \$4 for 8 hours' work; at the same rate how much should be paid him for a job lasting $5\frac{1}{2}$ hours? [2]

Ans. _____

b What will 4 dozen steel screws cost at 45 cents a gross? [2]

Ans. _____

c Find the number of lengths, each $\frac{7}{8}$ of a yard long, that can be cut from a piece of goods 14 yards long. [2]

Ans. _____

d What is the interest on \$125 for 2 months at 6%? [2]

Ans. _____

e If a dealer pays $\$1.12\frac{1}{2}$ a box for collars, how many boxes of collars can he buy for \$9? [2]

Ans. _____