

ARITHMETIC

Tuesday, January 21, 1913—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 question 1 and nine other questions. No credit will be allowed unless all operations (except mental ones) necessary to find results are given; simply indicating the operations is not sufficient. Reduce each result to its simplest form and mark each answer Ans.

1 See separate sheet.

2 Solve

$a \quad 12\frac{3}{5} + 3\frac{3}{4} + 2\frac{7}{15} + 4\frac{2}{5}$ $b \quad 18\frac{3}{10} - 3\frac{5}{8}$	$c \quad 6\frac{3}{5} \times \frac{2}{3}$ $d \quad 1\frac{7}{8} \div 3\frac{3}{4}$
--	---

[$2\frac{1}{2}$ credits will be allowed for each correct result.]

3 Define product, factor, quotient, prime number, interest.

4 a Write in words 4006.6071, 5000.0005, .060042

b Divide .87 by 870

c Multiply .145 by 14.5

5 At 11 cents per square foot, find the cost of laying a concrete walk 5 feet wide, along the front and along one side of a corner lot 80 feet long by 60 feet wide. Represent the lot and the walk by a diagram.

6 A cylindrical tank is 7 feet in diameter and 10 feet high; how many gallons does it hold? [One gal. = 231 cu. in.]

7 A commercial traveler receives a salary of \$30 per week and in addition a 3% commission on his sales; if his sales amount to \$6000 per month, how much is his income per month? [Assume that there are four weeks in one month.]

8 A 60 day note for \$2450, dated December 10, 1912, with interest at 6%, was discounted January 9, 1913 at 6%; find the discount.

9 A farmer desired to grind together oats and barley at the ratio of 3 bushels of oats to 2 bushels of barley; he had 64 bushels of barley. What was the quantity of oats required? [Solve by proportion.]

10 The foot of a 37 foot ladder is 12 feet from the wall of a building against which the top of the ladder rests; if the building stands on level ground, how high does the ladder reach on the wall?

11 A man bought a house and lot for \$6835. He repaired the house at a cost of \$1250. The house was burned and he received \$3575 insurance. He then sold the lot for \$4516. Did he gain or lose and how much?

12 The distance around a rectangular field is 192 rods; if the field is 56 rods long, how many acres does it contain?

ARITHMETIC COMPUTATION TEST,

[Fifteen minutes allowed for this question]

Tuesday, January 21, 1913—9.15 a. m. to 12.15 p. m.

a Add

\$ 3 6 7 . 4 6

3 7 6 . 4 5

4 8 9 . 0 6

2 9 8 . 4 9

9 2 1 . 9 4

1 7 8 . 2 5

3 8 7 . 4 8

3 2 . 5 4

5 5 2 . 6 2

6 1 7 . 0 4

3 6 . 4 0

4 3 6 . 2 7

b Divide

3895) 17948160 (