

ARITHMETIC

Tuesday, June 16, 1908—9.15 a. m. to 12.15 p. m., only

Answer 10 questions. Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans.

1 Define interest, longitude of a place, brokerage, gram, power of a number.

2 Copy and add [No credit will be given unless the sum is correct]:

4368	5962	6857	7976	8795	9874	2345	9876	1234	5678	9123	7654	8912	6789	5432	8973	9876	5432	1234	5678
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3 A man travels 360 miles in 12 days; at the same rate how far will he travel in 21 days? [Give written analysis.]

4 Find the simple interest on \$3562.25 from January 28, 1908 to June 18, 1910 at $4\frac{1}{2}\%$.

5 Taking the two numbers 445.3 and .073 find (a) their sum, (b) their difference, (c) their product, (d) the quotient of the first divided by the second. [a, b, c and d to have $2\frac{1}{2}$ credits each if results are correct.]

6 A corner lot has 96 feet front and is 180 feet deep; find the cost of laying a 4-foot stone walk on the front and side at 18 cents per square foot. [Draw a diagram of the lot and walk.]

7 A boy bought oranges at 20 cents per dozen and sold them at the rate of 2 for 5 cents; what per cent did he gain?

8 Which is the better for the purchaser and how much: two successive trade discounts of 25% and 10% on a bill of \$500 or a single discount of $33\frac{1}{3}\%$?

9 The total assessed valuation of a certain school district was \$2,559,000; the amount to be raised by tax was \$11,515.50. Find the amount of tax on a block assessed at \$85,000.

10 A horse tied to a stake can reach the grass 30 feet in any direction from the stake; over how many square feet of land can the horse graze?

11 If the distance between two places is 320 km., how many miles is it? [A meter is approximately 39.37 inches.]

12 Two stockmen maintain a common drinking trough; they share the annual cost of repairs according to the number of cattle owned by each. A has 1253 head of cattle and B has 2747. The annual cost of repairs is \$80. How much should each pay?