

ARITHMETIC

Wednesday, September 20, 1911—9.15 a. m. to 12.15 p. m., only

Answer 10 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. Each complete answer will receive 10 credits. Papers entitled to less than 75 credits will not be accepted.

1 Simplify $\frac{1\frac{1}{2} - 2\frac{3}{4} \div 3\frac{2}{3}}{\frac{2}{3} + \frac{5}{2} \times 1\frac{1}{3}}$

2 How many sheets of tin each $14'' \times 22''$ will be required to cover a roof $30' 4'' \times 18' 4''$?

3 From a hogshead of molasses 12 gal. 2 qt are drawn at one time, 17 gal. 1 qt at another time and 17 gal. 2 qt at another time; what fractional part of the whole still remains?

4 A man spent 80% of his money and afterward 25% of the remainder; he had \$600 left. How much had he at first?

5 The quotient is 58, the divisor 35 and the remainder 18; find the dividend.

6 A store was insured for \$5000 at $\frac{3}{4}$ of 1% and the goods for \$4000 at $1\frac{1}{4}\%$; find the total premium.

7 The longitude of Cape of Good Hope is $18^\circ 29'$ east and that of Cape Horn is $67^\circ 16'$ west; find the difference in time.

8 What is the interest on \$900 from June 15, 1908 to April 30, 1910 at 5%?

9 Change the following to decimal fractions and add: $\frac{3}{40}$, $\frac{11}{16}$, $5\frac{3}{50}$, $\frac{31}{25}$, $\frac{7}{800}$.

10 What is the length of one side of a square field containing 18 acres 36 square rods?

11 Find the value of 20 planks $2''$ thick $10''$ wide and $12'$ long at \$18 per M.

12 A buys a farm and stock for \$2000. In one year he receives from his dairy \$600, from his fowls \$100, from the sale of fruit and grain \$350; he pays for hired help \$200, for taxes \$50 and for repairs \$200. What is his per cent profit?