187TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Thursday, September 28, 1905—9.15 a. m. to 12.15 p. m., only

Answer the first five questions and five of the others but **no more.** *Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.*

1 Define *five* of the following: Arabic notation, minuend, prime number, decimal fraction, board foot, liter, par value.

2 Simplify $\frac{\frac{91}{2}+\frac{28}{5}+\frac{7}{12}}{3\times 1\frac{1}{4}}-\frac{1}{8}\times 6\frac{1}{2}$

3 A meter is 39.37 inches long; find the length in rods of a kilometer.

4 A grocer sold tea for 87½¢ a pound, thus gaining 12½¢ a pound; find his per cent of gain.

5 Find the simple interest of $634.60 at 4½% from November 29, 1902 till today.

6 An agent buys 2000 bushels of grain @ 91½¢ a bushel; would it be better for the agent to charge a commission of 4½% or of 4¢ a bushel? Find the difference between the two commissions.

7 A note for $384, without interest, dated June 30, 1905 and due today, was discounted at 6% July 31, 1905; find the proceeds of the note.

8 Find the cost, @ $16.50 per M, of 8 pieces of timber each 24′ long and 8″×10″.

9 Write the note mentioned in question 7, making it payable to yourself.

10 A certain army lost in one battle $\frac{3}{10}$ of its men and in another battle $\frac{1}{7}$ of the remainder, after which there were 16456 men left; find the number of men in the original army.

11 How much better rate of income will be received from an investment in 6% stock at 137⅜ than in 4% stock at 109⅛, brokerage in each case being ¼%?

12 A house valued at $3216 was insured for $\frac{3}{4}$ its value at ¾%; what annual premium was paid?