184TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Thursday, January 26, 1905—9.15 a. m. to 12.15 p. m., only

Answer the first five questions and five of the others but **no more.** *If more than five of the others are answered only the first five answers will be considered. 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: notation, concrete number factor, common multiple, proportion, brokerage, gram.

2 Multiply eighteen and five hundred seventy-five thousandths by one thousand six hundred forty-six hundred-thousandths and divide the product by seven hundred forty-three millionths. Express the result in words.

3 Find the cost, @ 4¢ a liter, of the milk in a vat which is 1.5 meters long, 8 decimeters wide and 4 decimeters deep.

4 A lot of goods was sold for $1015.30 at a loss of 31½%; find the loss.

5 Find the simple interest of $620.50 at 4½% from June 27, 1902 till today.

6 Find the cost, @ 15¢ a square yard, of painting the four sides and tops of 10 freight cars 34′ long, 8′ wide and 7′ high.

7 Find, in cubic feet, the capacity of a cylindric cistern 7, deep and 6′ in diameter.

8 On a bill of $620 a commercial discount of 5 and 5 or a single discount of 10% is offered; which is the better offer and how much better is it?

9 An agent sold cloth @ $1.70 a yard; his commission was 3% and the proceeds of the sale $824.50. Find the number of yards sold.

10 A man who pays an annual premium of 2½% on a life insurance policy for $1500, dies after 18 payments; find how much more his heirs receive than has been paid in.

11 A 60 day note for $630 without interest, dated December 27, 1904, is discounted today at a bank at 6%; find the discount.

12 What will be the total cost to a purchaser of 96 shares of stock at 126¼, brokerage ⅛%?

13 Find to *two* places of decimals the diagonal of a square whose side is 15′.

14 A can do a piece of work in 3½ days, B in 3 days and C in 2½ days; find how many days it will take them to do it if they all work together.

15 Simplify $\dfrac{\frac{3}{8}+\frac{1}{12}\div 1\frac{11}{16}}{2-1\frac{1}{12}+\frac{8}{77}\times 1\frac{1}{56}}-\frac{19}{36}$