High School Department

181ST EXAMINATION

ARITHMETIC

Thursday, March 24, 1904 — 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 Simplify $1 + .0875 \div .058\frac{1}{3} - 2.25 \times 1.5 \times \frac{2.015}{4.03}$ and reduce the result to an equivalent common fraction.

2 How many liters will a tank hold that is $1\frac{1}{2}$ meters long, $\frac{3}{4}$ meter wide and $\frac{1}{3}$ meter deep?

3 Find the number of shingles necessary to cover the pitched roof of a house if the length of the roof is 48′ and the width of each side is 24′, allowing 1000 shingles to 100 square feet.

4 Find the exact interest of $764.50 for 90 days at 5%.

5 A newsboy bought papers for $1\frac{1}{2}$¢ each and sold them for 2¢ each; find his rate of gain and his total gain in selling 56 papers.

6 By defective scales customers of a certain grocer received $15\frac{3}{4}$ oz. for a lb.; @ 6¢ a lb. find the actual value of the sugar bought by customers who paid for 2 cwt. 28 lbs. 12 oz.

7 A man bought a bicycle, paying $56.16 for it; his commercial discounts from the list price were 25 and 20 and his discount for cash was $2\frac{1}{2}$%. Find the list price of the bicycle.

8 A bin 8′×25′ holds 1440 bushels; find the hight of the bin. [1 bushel = 2150.42 cubic inches.]

9 A man owns three lots fronting a street, which are respectively 108 rods, 75 rods and 132 rods; he wishes to divide these lots into an exact number of building lots of the same width. Find the greatest width that these building lots can have and the number of lots formed.

10 Find one side of a square whose area is 10.5625 square feet.

11 The proceeds of a 90 day note discounted at a bank at 6% 17 days after date, are $274.17; find the face of the note.

12 A man buys 6% stock at 140; to what rate of interest is this equivalent?

13 An agent charged 2% commission and $56.40 expenses for selling grain and sent his principal $1477.30; find the sum for which the grain was sold.

14 A tax of $7\frac{1}{2}$ mills on a dollar was laid on the property of a school-district to pay for a school-house costing $2793; find the assessed valuation of the property.

15 Define decimal, multiplication, common multiple, power, par value.