University of the State of New York

190TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Wednesday, September 19, 1906 — 9.15 a.m. to 12.15 p.m., only

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*Answer the first five questions and five of the others. Give all opera-
tions (except mental ones) necessary to find results. Reduce each result
to its simplest form and mark it Ans. Each complete answer will re-
ceive 10 credits. Papers entitled to less than 75 credits will not be
accepted.*

1 Simplify $\dfrac{1.25 - (1.33\frac{1}{3} \div 1.66\frac{2}{3})}{240 \times .015}$

2 Reduce 44 rd, 4 yd, 1.2 ft to the decimal of a mile.

3 A grocer sold 4 chests of tea @ $20.08 a chest; on 3 chests he gained $25\frac{1}{2}$% and on 1 chest he lost 20%. Find the total cost of the tea.

4 Find the simple interest of $786 at $5\frac{1}{2}$% from December 28, 1904 till today.

5 A bin $28' \times 8' \times 4'$ is $\frac{3}{4}$ full of wheat; find how many bushels of wheat there are in the bin. [Solution by cancelation preferred. 1 bushel = 2150.4 cu. in.]

6 A commission merchant sold 45 barrels of apples for $2.80 a barrel, charging 6¢ a barrel for storage and a commission of $5\frac{1}{2}$%; find the net proceeds of the sale.

7 How many kiloliters of oil will a tank contain that is 3.4 meters long, 2.6 meters wide and 1.5 meters high?

8 Find the proceeds of a 60 day note for $420, without interest, dated August 29, 1906 and discounted at a bank today at 6%.

9 Furniture is bought at trade discounts of 5% and 16% from the list price and the net cost is $518.70; find the list price of the furniture.

10 New York is 74° 0′ 3″ west longitude and Chicago is 87° 38′ west; how much sooner does the sun rise at New York than at Chicago?

11 A man bought stock at 97 and sold at 102, brokerage in each case $\frac{1}{8}$%; find the net gain per share.

12 In 20 days 36 men can do a piece of work; find how many men it would take to do the work in 15 days. [Solve by proportion.]