University of the State of New York

185TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Thursday, March 30, 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 Write in Roman notation (*a*) 1326. (*b*) 969, (*c*) 2044. Write
in Arabic notation $\overline{\text{MM}}$CXIX and DXCVII.

2 Multiply 4.1925 by 807.63.   Prove that your answer is
correct.

3 From a hogshead of vinegar 39 gallons 1 quart 1 pint were
drawn; what fractional part of the whole remained? [63 gal-
lons=1 hhd.]

4 By selling a farm for $4228 a farmer would have lost $12\frac{1}{2}\%$;
how much would he have gained by selling the farm for $5040?

5 A 90 day promissory note for $376.85 with interest at 5%
is due today; find the amount and the date of the note.

6 Write the note mentioned in question 5.

7 Find the exact number of cubic yards in a cellar wall 18″
thick and 8′ high, the inside measurements of which are 60′×30′.

8 A cistern 10′ deep and $10\frac{1}{4}′$ in diameter was filled $\frac{1}{4}$ full of
water; how many gallons of water were there in the cistern?
[231 cubic inches=1 gallon.]

9 The proceeds of a 90 day note, without interest, discounted
at 6% 32 days before it is due, are $574.42; find the face of the
note.

10 An agent sold 44 wagons @ $135 each and gave his prin-
cipal $5197.50 as the proceeds of the sale; find the rate of the
agent's commission.

11 Find the cost, @ $.45 a rod, of fencing a $2\frac{1}{2}$ acre lot
which is in the form of a rectangle 25 rods long.

12 Find the weight, in kilograms, of the water in a tank 3
meters long, 2 meters wide and 1 meter 6 decimeters deep.

13 A merchant marked an article so as to gain 15% but sold
it for cash so as to gain $3\frac{1}{2}\%$; what per cent of the marked
price did he deduct?

14 A man sold through his broker 156 shares of stock @ $3\frac{1}{8}\%$
discount, paying a brokerage of $\frac{1}{8}\%$; find the brokerage and
the net proceeds of the sale.

15 The means of a proportion are $3\frac{1}{2}$ and $\frac{6}{11}$; one of the
extremes is $\frac{5}{14}$.   Write the proportion and solve it.