University of the State of New York
High School Department
177TH EXAMINATION
ARITHMETIC
Thursday, March 26, 1903—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 Divide 6.531884 by .01396 and multiply the quotient by 5.78.

2 Find the amount of $741 at 3½% simple interest from June 28, 1901 to the present date.

3 A dealer sold coal at an advance of $5.32 on a ton which was a gain of 95%; find the selling price a ton.

4 A bin is 3 meters 2 centimeters long, 1 meter 8 decimeters high and 1 meter 5 decimeters wide; find in liters the capacity of the bin.

5 A merchant buys through an agent 184 yards of silk @ $1.35 a yard and pays a commission of 5%; find the total cost of the silk to the merchant.

6 Add $\frac{225}{1088}$ and $\frac{175}{1632}$

7 A farmer sows 2 bushels 1 peck of wheat to the acre in a field 22 rods long and 20 rods wide; find the cost of the wheat @ 80¢ a bushel.

8 Find the square root of 325.3 to *three* decimal places.

9 Of a flight of 8 steps, each step is 18 inches wide, 1 foot high and 6 feet long; find the cost, @ 9¢ a square yard, of painting the steps.

10 Make a receipted bill of the following items charged against you by H. Ames: March 4, 1903, 4½ hours labor @ 35¢; March 5, 3 pounds nails @ 5¢ and 13 feet lumber @ 3½¢; March 6, 8¼ hours labor @ 30¢.

11 A merchant sells a coat for $14.70 after making a discount of 20% from the list price and a further discount of 6¼% for cash; find the list price of the coat.

12 A bin is 12' long, 7' wide and 4' deep; find the number of bushels of wheat it will hold, and the weight in pounds of the wheat. [1 bushel wheat=2150.4 cubic inches and weighs 60 pounds.]

13 A man owes $236.40 which he pays with the proceeds of his note for 90 days, discounted at a bank at 6%; find the bank discount.

14 A man sells 160 shares of 4% stock at 87⅝ and invests the proceeds of the sale in 6% stock at 124⅞, brokerage in each case being ⅛%; find how much his annual income is increased.

15 Define *five* of the following: division, fraction, premium, denominate number, negotiable note, net proceeds, ratio.