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University of the State of New York

Examination Department

134TH EXAMINATION

ARITHMETIC

Tuesday, January 28, 1896 — 9:15 a. m. to 12:15 p. m., only

100 *credits, necessary to pass,* 75

Answer questions 1-5 and five of the others but **no more.** *If more than five of these other questions are answered only the first five of these 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.*

1 Define *compound number, greatest common divisor, common fraction, subtraction, reduction.*

2 Simplify the following: $\dfrac{1\frac{1}{3}+2\frac{3}{5}}{4\frac{1}{10}-2\frac{4}{5}}\times\dfrac{\frac{3}{4}\times 1\frac{3}{5}}{1\frac{1}{4}}\times 6\frac{1}{2}$

3 Multiply four millionths by six ten-thousandths, divide the result by twelve and express the quotient in words.

4 A field containing 25 ares of land is 4 decameters wide; find its length.

5 Find the amount of $650 at $5\frac{1}{4}\%$ simple interest from September 16, 1895 to the present date.

6 Find the largest number that is exactly contained in *each* of the following: 476, 744, 1148.

7 Find the cost, at $18 a thousand feet, of lumber for a floor 21 feet long by 16 feet wide, allowing $\frac{1}{8}$ of the lumber for matching.

8 Find the cost, at $16.50 a ton, of 5 bales of hay averaging 225 lbs. each.

9 Find the contents in gallons of a vat 6 feet long, $2\frac{1}{4}$ feet wide and 18 inches deep.

10 Hats bought at $15 a dozen are sold at $2 apiece; find the gain per cent.

11 If 10 shares of stock paying 8% are sold at 175 and the proceeds loaned at 5%, will the income be increased or diminished and how much?

12 At what price must stock paying 4% be bought in order that 5% may be realized on the investment?

13 If 3 horses eat 6 bushels of oats in 8 days, how many bushels will 5 horses eat in 12 days? (Solve by proportion.)

14 Find the proceeds of a bank note for $650 discounted for 90 days at 6%.

15 Find in feet the side of a square whose area is 1 acre.