

University of the State of New York

Examination Department

133D EXAMINATION

ARITHMETIC

Tuesday, September 24, 1895 — 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 multiple, common fraction, integer, denominate number, square root.
- 2 Write in roman notation 95, 142, 563, 927, 1895.
- 3 Simplify the following $\frac{2\frac{1}{2} - 1\frac{2}{3}}{\frac{2}{5} \times (\frac{3}{4} - \frac{1}{2})} - \frac{2}{3} \times \frac{5}{8}$
- 4 Find the amount of \$365 from January 15 to August 29, 1895, at $5\frac{1}{2}\%$ simple interest.
- 5 An article sells for \$1.29; if the profit is 50% what was the cost?
- 6 Divide six and fifteen thousandths by three millionths and express the result in words.
- 7 Multiply 427896 by 59787 and divide the product by 213948, giving all the work.
- 8 Find the number of square yards in the four walls and ceiling of a room $16\frac{1}{2}$ feet long, $13\frac{1}{2}$ feet wide and 9 feet high, making no allowance for openings.
- 9 Find the cost at \$7.50 per thousand of the brick required for the four walls of a house 30 feet long, 24 feet wide and 18 feet high, walls one foot thick, allowing 21 bricks to the cubic foot and 10% for openings.
- 10 Find the cost at \$20 a ton of 12 bales of hay averaging 218 pounds each.
- 11 How many gallons in a cylindrical can 2 feet in diameter and 3 feet deep?
- 12 An agent receives \$1092.42 with which to buy oats at 42 cents a bushel after deducting his commission of 2%; how many bushels can he buy?
- 13 How much money must be invested in stocks paying five per cent and selling at 120, to produce an income of \$2000?
- 14 The area of a right triangle is 56 square feet, its shortest side is 8 feet; find the other sides.
- 15 Find the prime factors of 36593.