University of the State of New York

Examinations Department

107th examination

ARITHMETIC

Tuesday, January 24, 1893—9:15 a. m. to 12:15 p. m., only

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100 *credits, necessary to pass,* 75

NOTE—Give each step of solution, indicating the operations by appropriate signs. Use cancelation when possible. Reduce fractions to lowest terms. Express final result in its simplest form and mark it *Ans.*

1 Write a number which shall be at the same time simple, composite, abstract and even. State why it fills each of these requirements. 12

2 Simplify $\dfrac{2\frac{1}{3}+4\frac{1}{4}}{4\frac{1}{6}}$; reduce the simplified fraction to a decimal and express it in words. 10

3 A field of 18 acres produces 26 bushels of wheat per acre ; each bushel of wheat makes 52 lb. of flour ; if 196 lb. of flour are worth $5 what is the value of the crop? 12

4 Find the cost of a stick of timber 40 ft long, 12 in. wide, 9 in. thick at $12.50 per M, board measure. 6

5 A roll of wall paper 8 yd long and 18 in. wide costs 25 c. ; what will be the cost of paper for the four walls of a room 30 ft x 27 ft x 9 ft, no allowance being made for openings? 8

6 Find the amount of $375 for 11 months, 17 days at $4\frac{1}{2}\%$ simple interest. 8

7 A man walks $8\frac{3}{4}$ miles in 2 hours, 20 minutes ; how long will it take him to walk $11\frac{1}{8}$ miles? (Solve both by analysis and by proportion.) 12

8 I buy stocks at 4% discount and sell at 4% premium ; what per cent profit do I make on the investment? 8

9 On an article listed at $8 a trade discount of 20%, 10% and 5% is made ; find the selling price. 8

10 Find the cost, at 25 cents a rod, of building a fence round a square 10 acre field. 8

11 How many gold rings, each weighing 5 pwt, 18 gr., can be made from 2 oz. 6 pwt of gold? 8