Examinations Department
107th examination
ARITHMETIC

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

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 $\frac{2\frac{1}{3} + 4\frac{1}{6}}{4\frac{1}{6}}$; 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 wallpaper 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\(\frac{1}{2}\) 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