NOTE—Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans.

1 Distinguish between (a) a compound and a denominate number; (b) interest and discount. Illustrate by examples.

2 What will be the cost of carrying 250 cords of wood 100 miles, if a railway charges 1 cent a mile for carrying one cord the first 40 miles and 3 cents a cord for every 4 miles of the remaining distance?

3 Find the sum of \(9\frac{3}{8}, 8\frac{1}{4}, 5\frac{2}{3} \) and \(1\frac{5}{8}\). Express the result both as a fraction in lowest terms and as a decimal.

4 What part of an ounce (apothecaries’ weight) is 5 drams and 2 scruples?

5 In how many days will a boy earn, at 75 cents a day, as much as a man earns in 90 days at $2.75 a day?

6 What must be the length of a field 88 feet wide to contain one third of an acre?

7 What will it cost to paint the walls and ceiling of a hall 48 feet long, 27 feet wide, 18 feet high, at 95 cents a square yard?

8 A merchant marks an article $2.80, but in selling it takes off 5% for cash; if the rate of his profit is 33\% what was the cost of the article?

9 What is the amount of $255.40 from Feb. 16, 1891 to Dec. 10, 1892 at 5%?

10 A note of $275, dated Oct. 14, payable in 60 days, is discounted Oct. 14 at 6%; find the proceeds.

11 Divide \$720 among A, B and C, so that the number of dollars they receive shall be as the numbers 5, 6 and 7.

12 The side of a square room is 40 feet; find the distance, correct to two decimal places, between the diagonal corners of the floor.

13 If alcohol costs 50 cents a liter what is the cost of 7.5 deciliters?