

## TEST PAPERS

### I

1. Find, by contracted methods correctly to 3 places of decimals, the value of

(a)  $7.3218 \times 2.0723$ ;

(b)  $3.5729 \div 5.3827$ .

2. Find two numbers such that their difference will be 18 and that  $\frac{3}{4}$  of one will be equal to  $\frac{1}{4}$  of the other.

3. A note for \$182.50 is payable on the 7th of September; on the 4th of July it was discounted at a bank at the rate of 6 per cent. Find the net proceeds.

4. By selling 40 yd. of cotton for a certain sum of money a merchant gains 25 per cent. How many yards can he give for the same money if he decides to advance his profit to 50 per cent.?

5. A man bought 150 shares of 6 per cent. stock at 118 $\frac{1}{2}$ , received the half-yearly dividend, and sold at 119 $\frac{1}{2}$ ; brokerage on each transaction being  $\frac{1}{2}$  per cent.; find by how much he increased his capital.

6. A and B jointly buy a bankrupt stock for \$7000, A subscribing \$3000 and B \$4000. A, acting as agent, sells the goods at an advance of 35 per cent. Out of the proceeds A is to receive 10 per cent. as commission, and the rest is to be divided in the ratio of the amounts subscribed. Find the share of each.

7. The sides of a triangle are 54 yd., 59 yd., 67 yd., long; find its area and the length of the perpendicular to the longest side.

8. A circular field containing 12 acres is surrounded by a race track 15 yards wide. Find the area of the track, taking 3.1416 as the ratio of circumference to diameter.

9. A cylinder standing on a base of 12 cm. radius is 25 cm. high. Find the edge of a cube of the same volume.

### II

1. Find to three places of decimals, preferably by contracted methods,

(a)  $3.572 \times 0.2357$ .

(b)  $1.3275 \div 3.5934$ .