

9 What is the diagonal of a square containing 10 acres?  
56 5 + rods.—Ans.

10 A merchant sold silk at \$1.06 $\frac{1}{4}$  per yd., gaining thereby 20 per cent of the cost; what did he pay per yd. for the silk? 89cts.—Ans.

### Fifth Class—5.

1 An agent sold 200brls. of flour at \$8 per brl. and received a commission of 2 per cent; find the amount of his commission. \$32—Ans.

2 An agent received \$1020 with instructions to deduct a commission of 2 per cent and invest the proceeds in tea at 40cts. per lb.; how many pounds of tea did he purchase? 2500lbs.—Ans.

3 A store-keeper sells 12yds. of flannel for what 13 yds. cost; find his gain per cent? 8 $\frac{1}{4}$ —Ans.

4 A and B enter into partnership, A contributes \$9000 and B \$6000. At the end of 9 months A withdraws his capital and B continues the business until the end of the year. The gain during the year was \$3000; find A's share of the gain. \$1588 $\frac{1}{4}$ —Ans.

5 Find the compound interest of \$3000 for 2 years at 9 per cent, payable half yearly. \$376.52643—Ans.

6 Sold  $\frac{3}{4}$  of a brl. of flour for what the whole brl. cost; what per cent did I gain on the part sold? 33 $\frac{1}{4}$  per cent—Ans.

7 What is the edge of a cube whose entire surface is 16sq. ft. 96 sq. ins.? What is its volume? 20ins., 8000 cub. ins.—Ans.

8 There is a rectangular garden-plot whose length is to its breadth as 4 is to 3. Around it is a walk 10ft. wide, which contains 14400sq. ft.; find the dimensions of the plot. 400ft. by 300ft.—Ans.