

4 A merchant bought 300lbs. of tea for \$180 ; he paid 50cts. per lb. for a part of it and another price for the remainder ; had he paid 50cts. per lb. for the second quantity and the second price for the first quantity, he would have paid \$30 more. What was the price per lb. of the second quantity ? 80cts.—Ans.

5 Simplify  $(\frac{1}{12})^2 + \sqrt{(\frac{98}{144} - \frac{1}{12})}$ .  $\frac{109}{144}$ —Ans.

6 The triangular gable of a building has a base of 38 feet and an altitude of 16feet. What will it cost to cover the two gables with half-inch lumber at \$20 per thousand inch measure ? \$12.16—Ans.

#### Fifth Class—9.

1 A horse and carriage cost 320 ; had \$20 more been paid for the horse, and the cost of the two remained the same, he would have cost  $2\frac{1}{2}$  times as much as the carriage ; find the cost of the horse. \$200—Ans.

2 If the diameter of a half-penny be to that of a penny as 3:4 ; how many times the thickness of the half-penny is the thickness of the penny ?  $1\frac{1}{3}$ times—Ans.

3 A ruler is lin. in diameter and 22ins. long ; how many cubic inches in  $\frac{5}{11}$  of it ?  $7\frac{1}{2}$ cub. ins—Ans.

4 A and B engage in trade and gain \$420 ; A owns \$200 more than  $\frac{2}{3}$  of the stock and B's share of the gain is \$100 ; find A's stock. \$1600—Ans.

5 The amount is \$800, the principal is three times the interest, the time is 5yrs ; find the rate per cent.  $6\frac{2}{3}$ per cent—Ans.

6 In a right angled triangle the base is 40 rods and the perpendicular is 30 rods ; find the area of the triangle whose base is the line joining the points of bisection of the perpendicular and hypotenuse. 150sq. rods.—Ans.