

25 lbs. of black tea, and $\frac{1}{4}$ of cost be made by selling the mixture for \$35.40; and if the green tea cost 60 cts. per lb., find the cost of the black tea.

Ans. 70 cts.

7. What is the value of the following pieces of timber at 7 cts. per cubic foot: 8 pieces 35 ft. long and 14 in. square; 6 pieces 30 ft. long and 10 by 16 in.; 12 pieces 40 ft. long and 12 by 14 in.; 9 pieces 16 ft. long and 8 by 4 in.

Ans. \$82.11.

8. A drover having bought 300 sheep, kept 50 of them and sold the rest at 75 cts. each more than he paid for them, thus clearing \$62.50 above the cost of the whole lot. How much did he pay for the sheep?

Ans. \$2.50.

9. If 8 Englishmen can do in 10 days a piece of work that would require 6 Englishmen and 4 Germans to complete in 9 days, find how long it would take 12 Germans to finish a job that 10 Englishmen can do in 16 days.

Ans. $18\frac{2}{3}$ days.

10. How many bricks, each 8 in. long, 4 in. wide and 2 in. thick, will be required to build a house 30 ft. by 36, walls being 14 ft. high and 6 in. thick, if there are in the walls 4 doors, each 7 ft. by 4, and 10 windows, each 6 ft. by 4: 200 bricks being allowed for waste, and $\frac{1}{4}$ of the wall being composed of mortar?

Ans. 18366 $\frac{1}{4}$.

11. In the previous problem, had the last clause read, "the mortar used with each brick being equal in volume to $\frac{1}{4}$ of the brick," would the same answer have been correct? Why?

12. With carpet 2 ft. wide, at 75 cts. per yard, the cost of covering the floor of a room, whose length is $1\frac{1}{2}$ times its breadth, is \$54. If the height of the walls of the room be two-thirds of the breadth, what will be the cost of covering these walls with paper, the price being 35 cts. per roll of 6 yds?

Ans. \$13.06 $\frac{2}{3}$.

13. 20 per cent. of *A*'s money equals 30 per cent. of *B*'s, and the interest on *A*'s money for 1 year at 5 per cent., and on *B*'s for 1 year at 6 per cent., amounts to \$175. How much money had each?

Ans. *A*, \$1944 $\frac{2}{3}$; *B*, \$1296.27.

14. A note drawn for a certain sum on April 1st, at 9 months, and bearing interest at 8 per cent. per annum, is sold for \$450 on July 1st. If the purchaser makes 10 per cent. per annum on his investment, what was the face of the note?

Ans. \$465.75.

15. Show that the true discount on the interest is equal to the interest on the discount for same time at same rate—interest and discount being taken on the same sum.

16. A merchant buys wine at \$1.80 per gallon; pays a duty of $33\frac{1}{3}$ per cent. on the invoiced price, and also a specific duty of 60 cts. per gallon. At what price must he sell it so as to gain 30 per cent. on cost?

Ans. \$3.90 per gallon.

17. What was the cost price of goods that a man made \$75 on after paying an import duty of 20 per cent., and selling at an advance of 28 per cent. on invoiced price?

Ans. \$937.50.

18. If selling price be 15 per cent. advance on cost, what percentage of cost would 15 per cent. of selling price be?

19. 15 yds. cloth at 60 cts., discount of 5 per cent.; 8 yds. at \$2.50; 8 yds. at \$2.25; 16 yds. at \$1.75; 12 yds. at \$1.40, discount of $7\frac{1}{2}$ per cent.; 20 yds. at \$1.40; 1 doz. hats at \$2.25 each; $\frac{1}{2}$ doz. at \$1.50; $2\frac{1}{2}$ doz. at \$1.25; $1\frac{1}{2}$ doz. scarfs at 65 cts., discount of 10 per cent.; 15 doz. collars at 15 cts. each; 1 doz. ready-made suits at \$10.50 each, discount of 5 per cent. Received on above account \$150 at time of purchase; if 10 per cent. be allowed off for cash, how much will settle the bill at the end of 3 months, no interest?

Ans. \$182.15.

20. \$356 worth of goods were bought on January 15th, and a payment of \$75 was made on the same day. Another payment of \$75 was made on March 1st. If 10 per cent. be allowed off for cash at time of purchase, and 5 per cent. for cash paid any other time within three months, how much money will be required to settle the account on July 1st—no interest?

Ans. \$193.71.

21. A man bought butter, but cheated in the buying, so that for every 10 lbs. he got he only paid for 9. In selling it he was also