

IN THE HIGH SCHOOL ARITHMETIC

55. $82\frac{1}{2}\%$ of $\frac{3}{8}$ of the goods = $49\frac{1}{2}\%$ of the whole, and $76\frac{1}{4}\%$ of $\frac{2}{5}$ of the goods = $30\frac{1}{4}\%$ of the whole. $\therefore$ the amt. realized = 80% of whole value. If the whole val. would realize $81\frac{1}{4}\%$ of claims, then 80% of value would realize 80% of $81\frac{1}{4}\%$, or 65% .

56. Time required to plough 1 strip and to turn = $4\frac{1}{2}$ min. $\therefore$ in 9 hr. he ploughs 4800 rods. $\therefore$ no. of ac. =

$$\frac{4800}{160} \times \frac{11}{12 \times 3 \times 5\frac{1}{2}}$$

57. On \$500 the interest is \$10.20 in 73 days, &c.

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58. Suppose he bought 4 lb. Then he sold 1 lb. at a reduction of 10c. $\therefore$ he intended to gain 90c. on the 4 lb., which is 30% of cost. $\therefore$ cost of 4 lb. = \$3.

59. P. W. of \$5.70 = \$5.62 $\frac{1}{2}$. $\therefore$ cash S. P. = \$5.62 $\frac{1}{2}$ $\times$ $\frac{106\frac{2}{3}}{100}$ = \$6, which amounts to \$6.12 in 6 mo.

60. Net inc. on each share = \$4.90, which is 7% of cost. $\therefore$ cost of 1 share = \$70. $\therefore$ market value = \$69 $\frac{1}{8}$.

61. Total cost = \$2220. S. P. = \$672 + \$1495 + \$345 = \$2512. Com. = \$75.36. $\therefore$ net S. P. = \$2353.20. $\therefore$ gain = \$133.20, or 6% .

62. The loss = $\frac{1}{8}$. But the loss is equal to the discount on the amount of the marked price above the cost; that is the loss may be obtained by multiplying the cost by the square of the discount fraction. $\therefore$ the discount fraction is $\frac{1}{4}$, or 25% .

63. Taking 7, 6, 5 as the length, breadth and height, area of walls and ceiling = 172. $\therefore$ each sq. unit costs \$2 = cost of 4 sq. yd. $\therefore$ 1 sq. unit = 4 sq. yd.; but area of floor = 42 sq. units = 168 sq. yd.