

8. A gets $\frac{2}{3} = \$266\frac{2}{3}$. B gets $\frac{7}{6} = \$933\frac{1}{3}$.

9. (1) When the hands are on opposite sides of the figure III. The minute-hand will have gone 12 times as far from the figure XII as the hour-hand has from figure III, and is still as far from reaching figure III as the hour-hand is beyond it, or $\frac{1}{3}$ of the distance from XII to III. The minute-hand has, therefore, gone $\frac{1}{3}$ of that distance \therefore the time is $\frac{1}{3}$ of 15 minutes past 3 o'clock. (2) When the minute-hand has caught up to the hour-hand or gained 15 minute-spaces \therefore the time is $\frac{1}{11}$ of 15 minutes past 3 o'clock.

10. Receiving back once as much as he spent would bring his money up to \$720 \therefore the other $6\frac{1}{2}$ times must increase it from \$720 to \$1305, that is by \$585 $\therefore \frac{\$585}{6\frac{1}{2}} = \$90 =$ amount spent.

DECEMBER, 1885.

1. 2, 3, 5, 7, 11.

2. (a) $\frac{1}{2}\frac{1}{3}$. (b) L. C. M. = 28152.

3. Amount left at end of one year = $\frac{2}{3}$; amount left at end of next year = $\frac{2}{7}$ of $\frac{2}{3}$, which = \$900; hence the whole fortune = \$1890.

4. The remainder after dividing $159\frac{1}{7}$ by $12\frac{5}{8}$, which is $5\frac{1}{7}$.

5. $3.74976 \div 60 \div 24 \div 7 = .000372$.

6. $\$27.50 \times 11\frac{3}{4} = \$323.12\frac{1}{2}$.

7. The unit of length is the yard; of time, the mean solar day; of sterling money, the sovereign or pound sterling.

8. \$132.

9. In 60 hours (L. C. M. of 10, 12, 15) the first could fill it 6 times; the second, 5 times; the third, 4 times \therefore all together would fill it 15 times in 60 hours, or once in 4 hours.