Lesson VIII.

1. What principal will in 4 years, at 5 per cent., amount to $360?

SOLUTION.—If the interest of $1 for 1 year is 5 cents, for 4 years it is 4 times 5 cents, or 20 cents. Therefore, $\frac{20}{100}$, or $\frac{1}{5}$ of the principal equals the interest; to which add $\frac{5}{5}$, the principal, and we have $\frac{6}{5}$ of the principal equal to the amount, $360. If $\frac{6}{5}$ of the principal is $360, $\frac{1}{5}$ of the principal is $\frac{1}{6}$ of $360, which is $60, and $\frac{5}{5}$ (the principal), is 5 times $60, which are $300.

2. What principal will in 3 years, at 6 per cent., amount to $118?

3. What principal will in 6 years, at 10 per cent., amount to $120?

4. What principal will in 10 years, at 7 per cent., amount to $170?

5. What principal will in 4 years, at 5 per cent., amount to $660?

6. A is worth $\frac{1}{3}$ as much as B; and the interest on their united fortunes for 2 years, at 5 per cent., is $880. What is each of their fortunes?

7. A merchant sold a quantity of cloth for $214, and thereby gained 7 per cent. What did the cloth cost him?

8. What principal will in 2 years, at 7 per cent., amount to $1140?

9. What principal will in 10 years and 8 months, at 9 per cent., amount to $490?

10. The amount due on a note, which had been on interest 6 years and 2 months, at 6 per cent., was $274. What was the face of the note?

11. What principal will in 12 years and 9 months, at 4 per cent., amount to $302?

12. If $\frac{1}{2}$ of A's fortune for 4 years and 6 months, at 6 per cent., amounts to $127; what is his whole fortune?

13. If $\frac{2}{3}$ of B's fortune, being put on interest for