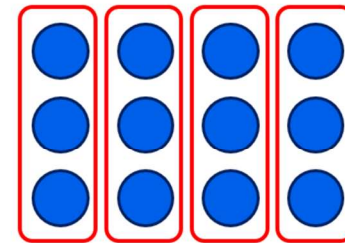# Division is the Opposite of Multiplication

Division and multiplication are inverse operations, meaning one undoes the other.

- **Multiplication** is the process of combining equal groups. For example, 4 x 3 means you have 4 groups of 3, which gives you **12**.

- **Division**, on the other hand, takes a total amount and splits it into equal groups. So if you take **12** and divide it by 3 ($12 \div 3$), you are figuring out how many groups of 3 fit into **12**, which gives you **4**.

- **Multiplication builds up a number.**

- **Division breaks it down.**

- That's why they are opposites.

- You can check your division by multiplying the result back. If you divide **12 by 3** and get **4**, multiplying **4 × 3** brings you back to **12**.

$$4 \times 3 = 12$$

$$12 \div 3 = 4$$