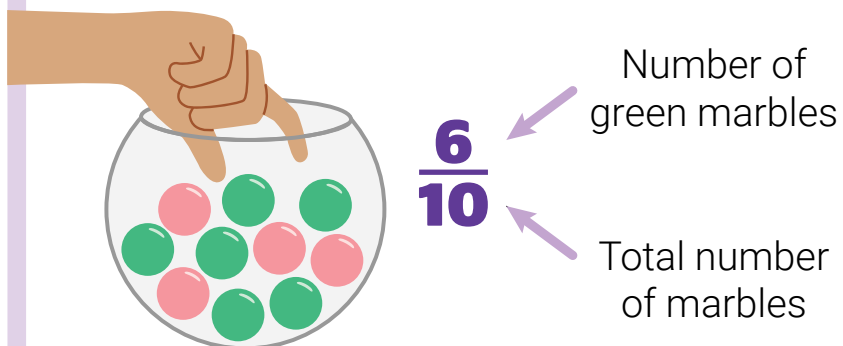


## Theoretical probability

The probability we **expect** based on the total number of possible outcomes and the number of outcomes leading to the event.

$$\frac{\text{number of outcomes in the event}}{\text{total number of possible outcomes}}$$

What is the **theoretical** probability of choosing a green marble?



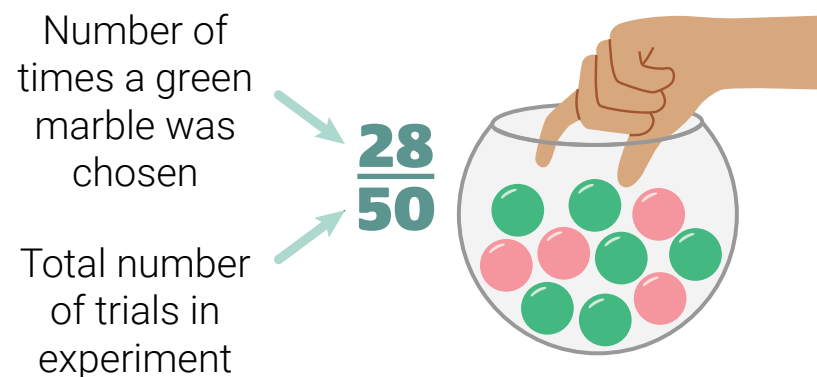
The theoretical probability of choosing a green marble is  $\frac{6}{10}$  or **60%**

## Experimental probability

The probability calculated from the results of an **experiment** with repeated trials.

$$\frac{\text{number of times the event occurs}}{\text{total number of trials}}$$

What is the **experimental** probability of choosing a green marble?



The experimental probability of choosing a green marble is  $\frac{28}{50}$  or **56%**