

Reteaching 1-6

Probability

OBJECTIVE: Finding theoretical probability**MATERIALS:** None

The possible results of an experiment are **outcomes**. If you want to find the theoretical probability of a particular event, or a **favorable outcome**, you use this formula:

$$P(\text{event}) = \frac{\text{number of outcomes in the event}}{\text{number of possible outcomes}}$$

Example

Find the theoretical probability of rolling a number cube and having an outcome of either 2 or 4.

$$\begin{aligned} P(2 \text{ or } 4) &= \frac{\text{number of times 2 or 4 are outcomes}}{\text{total possible numbers on cube}} = \frac{2}{6} \\ &= \frac{1}{3} \end{aligned}$$

Exercises

Use the spinner at the right to determine the theoretical probability for each event.

- $P(\text{the number is even})$
- $P(5)$
- $P(\text{the number is prime})$
- $P(\text{the number is less than } 6)$
- $P(\text{an odd number})$
- $P(\text{a number divisible by } 2)$
- $P(\text{a multiple of } 3)$
- $P(\text{an } 11 \text{ or } 15)$
- $P(\text{a composite number})$
- $P(\text{the number represents your age})$
- $P(\text{a perfect square})$
- $P(\text{the number represents your grade})$
- $P(\text{not a } 5 \text{ or } 7)$

