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.

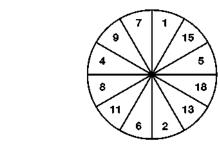
$$P(2 \text{ or } 4) = \frac{\text{number of times } 2 \text{ or } 4 \text{ are outcomes}}{\text{total possible numbers on cube}} = \frac{2}{6}$$

$$=\frac{1}{3}$$

Exercises

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

- **1.** P(the number is even)
- **2.** *P*(5)
- **3.** P(the number is prime)
- **4.** P(the number is less than 6)
- **5.** P(an odd number)
- **6.** P(a number divisible by 2)
- **7.** P(a multiple of 3)
- **8.** *P*(an 11 or 15)
- **9.** P(a composite number)
- **10.** P(the number represents your age)
- **11.** P(a perfect square)
- **12.** P(the number represents your grade)
- **13.** *P*(not a 5 or 7)



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