



Math On the Spot

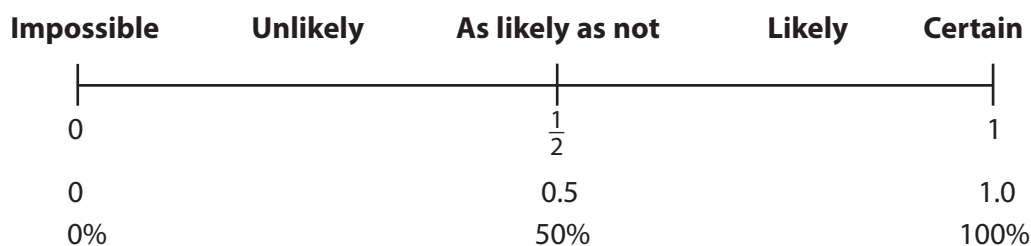
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Describing Events

An **experiment** is an activity involving chance in which results are observed. Each observation of an experiment is a **trial**, and each result is an **outcome**. A set of one or more outcomes is an **event**.

The **probability** of an event, written $P(\text{event})$, measures the likelihood that the event will occur. Probability is a measure between 0 and 1 as shown on the number line, and can be written as a fraction, a decimal, or a percent.

If the event is not likely to occur, the probability of the event is close to 0. If an event is likely to occur, the event's probability is closer to 1.



EXAMPLE 1



TEKS 7.6.I

Tell whether each event is impossible, unlikely, as likely as not, likely, or certain. Then, tell whether the probability is 0, close to 0, $\frac{1}{2}$, close to 1, or 1.

- A** You roll a six-sided number cube and the number is 1 or greater.

This event is certain to happen. Its probability is 1.

Because you can roll the numbers 1, 2, 3, 4, 5, and 6 on a number cube, there are 6 possible outcomes.

- B** You roll two number cubes and the sum of the numbers is 3.

This event is unlikely to happen. Its probability is close to 0.

- C** A bowl contains disks marked with the numbers 1 through 10. You close your eyes and select a disk at random. You pick an odd number.

This event is as likely as not. The probability is $\frac{1}{2}$.

- D** A spinner has 8 equal sections marked 0 through 7. You spin and land on a prime number.

This event is as likely as not. The probability is $\frac{1}{2}$.

Remember that a prime number is a whole number greater than 1 and has exactly 2 divisors, 1 and itself.

Math Talk

Mathematical Processes

Is an event that is *not* likely an impossible event? Explain.

Reflect

2. The probability of event A is $\frac{1}{3}$. The probability of event B is $\frac{1}{4}$. What can you conclude about the two events?
