Name _____ Date _____ Class _____

LESSON 12-2

Experimental Probability of Simple Events

Reteach

Experimental probability is an estimate of the probability that a particular event will happen.

It is called *experimental* because it is based on data collected from experiments or observations.

$$\text{Experimental probability} \approx \frac{\text{number of times a particular event happens}}{\text{total number of trials}}$$

JT is practicing his batting. The pitcher makes 12 pitches. JT hits 8 of the pitches. What is the experimental probability that JT will hit the next pitch?

- A favorable outcome is hitting the pitch.
- The number of favorable outcomes is the number JT hit: 8.
- The number of trials is the total number of pitches: 12.
- The experimental probability that JT will hit the next pitch is $\frac{8}{12} = \frac{2}{3}$.

1. Ramon plays outfield. In the last game, 15 balls were hit in his direction. He caught 12 of them. What is the experimental probability that he will catch the next ball hit in his direction?

   a. What is the number of favorable events? _____

   b. What is the total number of trials? _____

   c. What is the experimental probability that Ramon will catch the next ball hit in his direction?

   _____

2. In one inning Tori pitched 9 strikes and 5 balls. What is the experimental probability that the next pitch she throws will be a strike?

   a. What is the number of favorable events? _____

   b. What is the total number of trials? _____

   c. What is the experimental probability that the next pitch Tori throws will be a strike?

   _____

3. Tori threw 5 pitches for one batter. Kevin, the catcher, caught 4 of those pitches. What is the experimental probability that Kevin will **not** catch the next pitch? Show your work.

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