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10-5 Experimental Probability.....#

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**Objectives**




Determine the experimental probability of an event.

Use experimental probability to make predictions.

Feb 2-9:30 AM

10-5

An **experiment** is an activity involving chance. Each repetition or observation of an experiment is a **trial**, and each possible result is an **outcome**. The **sample space** of an experiment is the set of all possible outcomes.

Experiment	Rolling a number cube 	Tossing a coin 	Spinning a game spinner 
Sample Space	{1, 2, 3, 4, 5, 6}	{heads, tails}	{red, blue, green, yellow}


$\{R, B, G, Y\}$   
**Dice:**  $SS \{1, 2, 3, 4, 5, 6\}$   
**Coin:**  $SS \{H, T\}$



Feb 11-7:46 PM

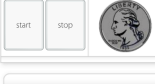

{S, T, ...}

Feb 3-9:40 AM

Identify the sample space and the outcome shown for each experiment.

1)  Sample Space:  $\{R, B, G, Y\}$   
 Outcome shown:  $\{B\}$

2)  Sample Space:  
 Outcome shown: 

3)  Sample Space:  
 Outcome shown: 

Feb 2-12:02 PM

Two Coins  $SS: \{TT, HH, HT, TH\}$

Probability of getting HH  $\frac{1}{4}$

get either H,T  $\frac{2}{4} = \frac{1}{2}$

Feb 3-9:41 AM

An **event** is an outcome or set of outcomes in an experiment. **Probability** is the measure of how likely an event is to occur. Probabilities are written as fractions or decimals from 0 to 1, or as percents from 0% to 100%.

Impossible      As likely as not      Certain

Unlikely      Likely

0%      50%      100%

Events with a probability of 0% never happen.     
 Events with a probability of 50% have the same chance of happening as not.     
 Events with a probability of 100% always happen.

Feb 11-7:52 PM

