Assignment

Write

Explain how to determine the probability of a compound event. Be sure to include both types of compound events.

Remember

A compound event combines two or more events using the word "and" or the word "or."

Practice

1. Porter is pulling colored tiles out of a bag to use for an art project. The table shows the number of tiles of each color that are in the bag. Porter selects tiles from her bag.

Color	Number of Tiles
Blue	10
Yellow	12
Pink	6
Green	3
Purple	9

   a. How many tiles are in her bag?
   b. Complete the probability model for pulling tiles from the bag.

Outcome	Blue	Yellow	Pink	Green	Purple
Probability					

   c. What is the probability that Porter pulls a green or purple tile?
   d. What is the probability that Porter pulls a pink, green, or purple tile?
   e. What is the probability that Porter pulls a pink and purple tile in one draw?

2. Once Porter finishes placing the tiles in her art project, she needs to determine the color of the grout that goes in between the tiles and the color of the frame around the project. She flips a coin to decide if she is going to use blue or yellow grout. She assigns heads to blue grout and tails to yellow grout. She puts a yellow, green, blue, and purple tile in a bag and pulls one out to determine the frame color.
   a. Determine the possible outcomes for flipping a coin and picking a tile out of the bag.
   b. How many possible outcomes are there?
   c. What events make up choosing the same color for grout and the frame?
   d. Determine the probability of choosing the same color for grout and the frame.
   e. What events make up choosing blue for the grout or the frame?
   f. Determine the probability of choosing blue for the grout or the frame.

Stretch

In a popular board game, if you roll doubles on two six-sided number cubes, you roll again. However, if you roll doubles three times in a row, you lose your turn and are further penalized. Determine the probability of rolling three doubles in a row.

Review

1. Everleigh has 3 shirts and 2 pairs of pants in her drawer. She has 2 red shirts and a blue shirt. The pants are a pair of jeans and a pair of khakis.
   a. What is the probability that she picks a red shirt with khakis?
   b. What is the probability that she picks the blue shirt and jeans?
2. Construct a probability model for rolling a 5-sided polyhedron.
   Is the probability model a uniform probability model? Explain your reasoning.
3. Determine each difference. Show your work.
   a. $-9\frac{3}{4} - 10\frac{7}{10}$
   b. $-34.9 - (-71.2)$