



1. Cassie and Jacob are playing a game. Six tiles, numbered 1 to 6, are placed face down. Each player selects a tile. If the sum of their two tiles is even, Jacob wins. If the sum is odd, Cassie wins. Is this game fair? Explain.
2. The odds in favour of an Inuit person being able to converse in more than one Aboriginal language are 7 : 3. Determine the probability that an Inuit person can converse in at least two Aboriginal languages.
3. A credit card company randomly generates a temporary three-digit pass code for cardholders. Braydon is expecting his credit card to arrive in the mail. Determine the probability that his pass code is made up of three different even digits.
4. In the card game called Crazy Eights, players are dealt 8 cards from a standard deck of 52 playing cards. Determine the probability that a hand will consist of 4 hearts and 4 spades.
5. Kaylee plays the balloon pop game at a carnival. There are 50 balloons, with the name of a prize inside each balloon. The prizes are 10 stuffed bears, 4 toy trucks, 20 stuffed rabbits, 6 yo-yos, and 10 giant stuffed cats. Kaylee pops a balloon with a dart. Determine the probability that she will win either a toy truck or a yo-yo.
6. Hans tosses a coin and then draws a card from a standard deck of 52 playing cards. Determine the probability that he will toss a head and draw an 8.
7. Jarrod likes to play basketball. Based on past games, the probability that he will make a free throw is 70%. If he has been awarded two free throws, what is the probability of each of the following?
  - a) He will make both shots.
  - b) He will miss both shots.
  - c) He will make one shot.
  - d) He will make at least one shot.
8. A euchre deck consists of 24 cards: the 9, 10, jack, queen, king, and ace of all four suits. George draws two cards from a well-shuffled euchre deck. Determine the probability that both cards are hearts.
9. Miguel remembers to set his alarm clock 72% of the time. When he does remember to set his alarm clock, the probability that he will be late for school is 0.10. When he does not remember to set it, the probability that he will be late for school is 0.70. Miguel was late today. Determine the probability that he remembered to set his alarm clock.

**WHAT DO You Think Now?** Revisit **What Do You Think?** on page 301. How have your answers and explanations changed?