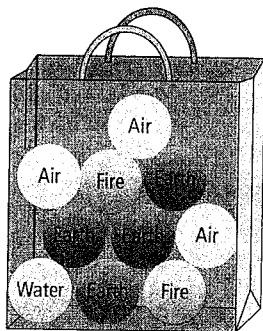


5

Practice Test

For #1 to #5, choose the best answer.

A bag contains 10 balls. One ball is chosen at random. Use the diagram to answer #1 to #3.



1. What is the probability that a Fire ball is chosen?

- A $\frac{1}{5}$ B $\frac{2}{5}$ C $\frac{1}{10}$ D $\frac{3}{10}$

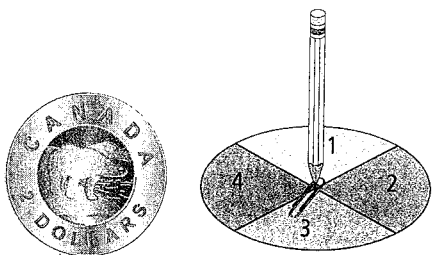
2. What is the probability that an Air or Water ball is chosen?

- A $\frac{7}{10}$ B $\frac{2}{5}$ C $\frac{1}{5}$ D $\frac{1}{2}$

3. What is the probability that an Earth ball is *not* chosen?

- A 10% B 40% C 60% D 90%

Use this diagram to answer #4 and #5.



4. The coin is flipped once. The spinner is spun once. What is the total number of possible outcomes?

- A 2 B 4 C 6 D 8

5. The following tally chart shows the results of a probability experiment for 20 spins of the spinner. Which number has a higher experimental probability than would be expected?

1	2	3	4

- A 1 B 2 C 3 D 4

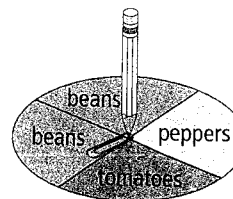
Short Answer

6. The A-Plus company will print yellow, green, and orange T-shirts with the day of the week. Draw a tree diagram to display the possible outcomes.

7. Customers at Fresh Wrap Restaurant can choose a single item from each section of the menu. Create a table to show the possible outcomes.

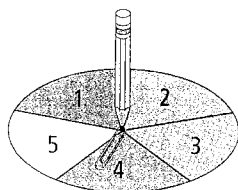
Menu	
<u>Drinks</u>	
Milk	Apple Juice
<u>Meals</u>	
Chicken Wrap	Cheese Pizza
Caesar Salad	

8. The following spinner is spun twice.



- Are the outcomes of the spinner equally likely? Explain.
- Create a tree diagram that shows the possible outcomes.
- What is the probability that *beans* is spun both times?
- What is the probability that the same vegetable is not repeated on the second spin?

9. A spinner with 5 equal regions is spun twice.



- Create a table to show the sample space.
- What is the probability that the same number appears on both spins? Write your answer as a fraction and as a percent.
- What is the probability that the sum of the two spins is 3? Write your answer as a percent.
- What is the probability that the first spin is a larger number than the second spin? Write your answer as a fraction.

Extended Response

10. Anthony has been fouled in a basketball game and will now have two free throws. The team statistics show that he has a $\frac{4}{5}$ chance of making both free throws.
- How could you use a spinner to show the possibility of Anthony making both free throws?
 - Develop a table of the possible outcomes. Circle the favourable outcomes.
 - Star used a spinner to check the experimental probability of Anthony making both free throws. She did 100 trials. Her results showed Anthony succeeding 75 times. Show this experimental probability as a percent.
 - Determine the theoretical probability of Anthony making both free throws.
 - Compare the experimental probability and the theoretical probability.

WRAP IT UP!

Work with a partner to create your own simple game that uses a pair of dice.

Play your game several times.

Write a report about your game including the following information:

- What are the rules for your game?
- What are all the possible outcomes?
- How does a player win the game?
- What probabilities are important to know? Justify your response.
- Compare the theoretical probabilities of the game to the experimental probabilities you experienced while playing.
- What strategies might you use to increase your chances of winning? Justify your response.