Name: _____ Date: _____

11.2 Outcomes of Independent Events

***MathLinks 8*, pages 419–425**

Key Ideas Review

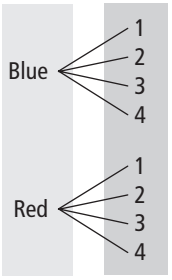
Use the diagrams to fill in the blanks for #1.

1. Name the methods shown that can be used to determine the possible number of outcomes.

a) _____

b) _____

c) _____

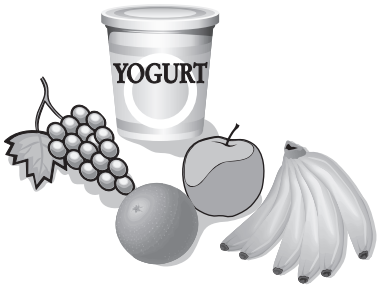


	1	2	3	4
Blue	B, 1	B, 2	B, 3	B, 4
Red	R, 1	R, 2	R, 3	R, 4

$2 \times 4 = 8$

Practise and Apply

2. Christine is making her lunch. She can choose strawberry, peach, or raspberry yogurt and an apple, an orange, grapes, or a banana. She picks one yogurt and one piece of fruit.

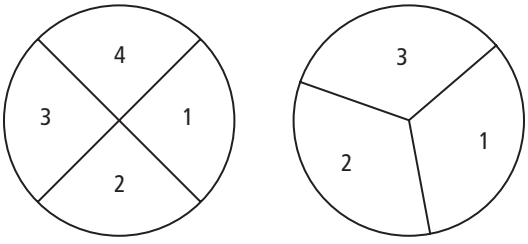


a) Draw a tree diagram to show the sample space.

b) How many possible outcomes are there?

c) Check your answer using multiplication.

3. A new game uses the following two spinners.

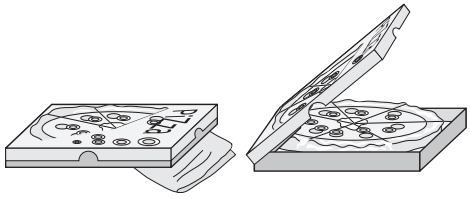


a) Use multiplication to determine the total number of possible outcomes.

b) Check your answer using another method.

Name: _____ **Date:** _____

4. Aira is ordering pizza for her birthday party. There are three choices for crusts (thin, regular, stuffed), two choices for meat (pepperoni or ham), and four choices for toppings (mushrooms, pineapple, green peppers, extra cheese).

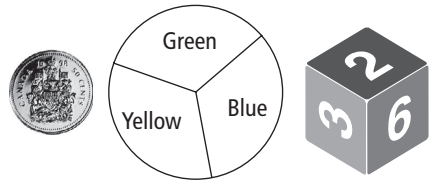


a) Draw a tree diagram to show how many different types of pizza she can order.

b) Verify the number of pizzas using multiplication.

c) If one of the guests is allergic to mushrooms, how many pizzas can Aira order? Use multiplication to verify your answer. Show your work.

5. Use a tree diagram and multiplication to find the outcomes of these three events.



a) Tree diagram:

Multiplication:

b) How many possible outcomes are there?

6. a) Create a question that would give the following number of possible outcomes: $2 \times 5 \times 3 = 30$.

b) Draw a tree diagram to verify the number of possible outcomes.