

Name: _____

7-6 Additional Practice

Scan for
Multimedia 

Sample Space

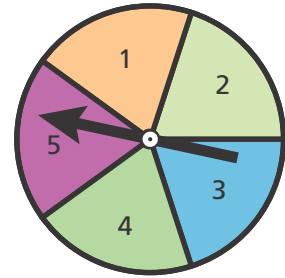
- HHH
- HHT
- HTH
- HTT
- THH
- THT
- TTH
- TTT

- 1.** The organized list shows all the possible outcomes when three fair coins are flipped. The possible outcomes of each flip are heads (H) and tails (T).

What is the probability that exactly 1 fair coin lands heads up when 3 are flipped?

- 2.** The table shows the possible outcomes of spinning the pointer of the spinner shown at the right and tossing a fair coin.

	1	2	3	4	5
H	1, H	2, H	3, H	4, H	5, H
T	1, T	2, T	3, T	4, T	5, T



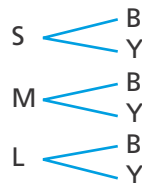
$P(1, H) =$

- 3.** A fair coin with sides printed heads and tails is flipped and a golf ball is randomly selected from a bucket that contains 2 yellow and 5 white golf balls.

a. Develop a complete probability model to describe all the possible outcomes in the sample space.

b. What is the probability that the coin lands tails up and a white golf ball is selected?

- 4.** The tree diagram below shows all the possible varieties of a T-shirt available in small, medium, and large, and in the colors blue and yellow.



What is the probability that a medium T-shirt or a yellow T-shirt is randomly selected? Explain.

5. Higher Order Thinking A slice of pizza is requested with two randomly selected toppings as listed in the table below at the right. The pizza can have double the amount of a certain topping if the same topping is selected. Complete the *Two-Topping Pizzas* table to represent the sample space of possible topping combinations. Then find the probability that the pizza will have broccoli and olives as the toppings.

Two-Topping Pizzas

	M	P	O	B	S	T
M	M, M	P, M	O, M	B, M	S, M	T, M
P	M, P	P, P	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
O	M, O	P, O	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B	M, B	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
S	M, S	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
T	M, T	P, T	O, T	B, T	S, T	T, T

Pizza Toppings	
Mushrooms (M)	Broccoli (B)
Peppers (P)	Spinach (S)
Olives (O)	Tomatoes (T)

© Assessment Practice

6. All possible outcomes of spinning the pointers of two spinners with equal-sized sections labeled 1 through 3 are recorded in the table at the right. Find the probability that the sum of the numbers shown on each spinner will be greater than or equal to 5.

	1	2	3
1	1, 1	1, 2	1, 3
2	2, 1	2, 2	2, 3
3	3, 1	3, 2	3, 3

7. A vowel will be randomly selected from the sample space {a, e, i, o, u}. A number will be randomly selected from the sample space {1, 2}. Draw a tree diagram to represent the possible outcomes of randomly selecting a vowel and a number. Then find the probability of choosing e and 2.

