Name: _____ Date: _____

Communicate the Ideas

1. John flips a coin and rolls a 6-sided die.

a) What does P(H, 3) mean?

_____

b) John starts to draw a tree diagram to find the probability of flipping heads and rolling a 3. Explain what John has to do next to complete his tree diagram.

Coin	_____	Outcomes

H

T

_____

_____

_____
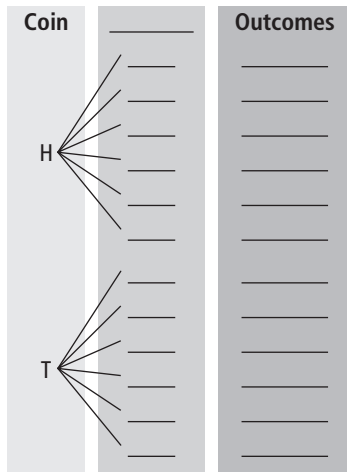
2. Monique missed class today.

a) Explain how to use the table to show the sample space when you flip 2 coins.

_____

_____

_____

_____

		Coin 2	
		Heads	**Tails**
Coin 1	**Heads**		
	Tails		

b) What does favourable outcome mean? Give 1 example using the table.

_____

_____

Name: _____ Date: _____

Practise

3. Damien flips a coin and spins the spinner.

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

Coin	Spinner	Outcomes

H ← _____ 2 _____   _____ , _____
                                        H   ,   2
      _____   _____ , _____

T ← _____ 2 _____   _____ , _____
                                        T   ,   2
      _____   _____ , _____
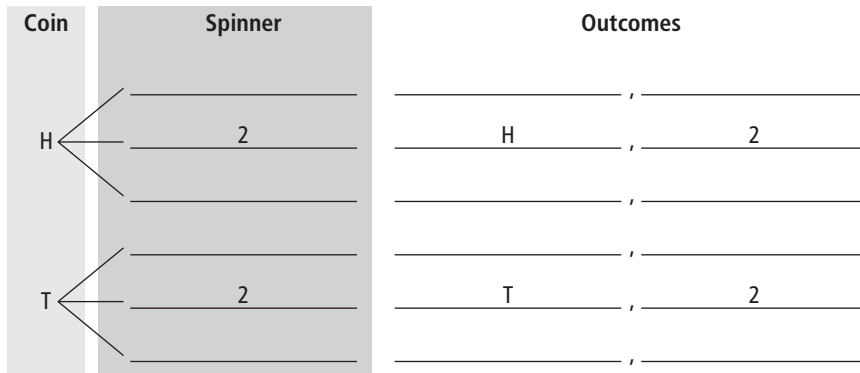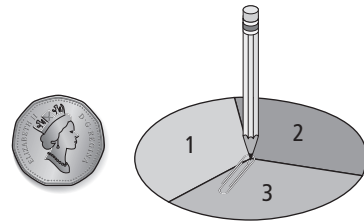
b) List the sample space. (_____ , _____), (_____ , _____),

_____

c) What is the $P(\text{H, 2})$? Write your answer as a fraction, a decimal, and a percent.

$$P(\text{H, 2}) = \frac{\boxed{}}{6} \leftarrow \frac{\text{favourable outcomes}}{\text{possible outcomes}}$$

$$= \text{_____} \quad \leftarrow \text{decimal}$$

$$= \text{_____} \quad \leftarrow \text{percent}$$

d) What is $P(\text{T, odd number})$?
Write your answer as a fraction, a decimal, and a percent.

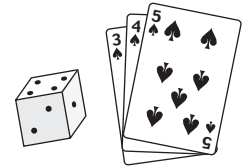$$P(\text{T, odd number}) = \frac{\boxed{}}{\boxed{}} \leftarrow \frac{\text{favourable outcomes}}{\text{possible outcomes}}$$

Odd numbers end in 1, 3, 5, ...

$$= \text{_____} \quad \leftarrow \text{decimal}$$

$$= \text{_____} \quad \leftarrow \text{percent}$$

Name: _____   Date: _____

4. Ali chooses 1 card and rolls a 6-sided die.

a) Complete the table to show the sample space.

		Die					
		1	**2**	**3**	**4**	**5**	**6**
	3	3, 1					
Cards	**4**						
	5						

b) What is the probability that both numbers are the same?
Write your answer as a fraction, a decimal, and a percent.

P(both same number) $= \dfrac{\quad}{\quad}$ $\leftarrow \dfrac{\text{favourable outcomes}}{\text{possible outcomes}}$

$= $ _____ $\leftarrow$ decimal

$= $ _____ $\leftarrow$ percent

c) What is the probability that the sum of the die and the card is equal to 6?
Write your answer as a fraction, a decimal, and a percent.

P(sum is 6) $= \dfrac{\quad}{\quad}$ $\leftarrow \dfrac{\text{favourable outcomes}}{\text{possible outcomes}}$

$= $ _____ $\leftarrow$ decimal

$= $ _____ $\leftarrow$ percent

d) What is the probability that the number on the die is larger than the number on the card?
Write your answer as a fraction, a decimal, and a percent.

P(larger number on die) $= \dfrac{\quad}{\quad}$ $\leftarrow \dfrac{\text{favourable outcomes}}{\text{possible outcomes}}$

$= $ _____ $\leftarrow$ decimal

$= $ _____ $\leftarrow$ percent

Name: _____ Date: _____

Apply

5. Lucy is fishing. She has an equal chance of catching a whitefish, a trout, an arctic char, or losing a fish off the hook. What might she catch if she pulls her hook out twice?

a) Complete the table to show all the possible combinations.

		Second Catch			
		_____	_____	_____	_____
First Catch	**Whitefish (W)**				
	Trout (T)				
	_____				
	_____				

There are _____ possible combinations.

b) What is the probability she will catch 2 arctic char: *P*(char, char)?

Sentence: _____

c) What is *P*(whitefish, char) in either order?

Sentence: _____

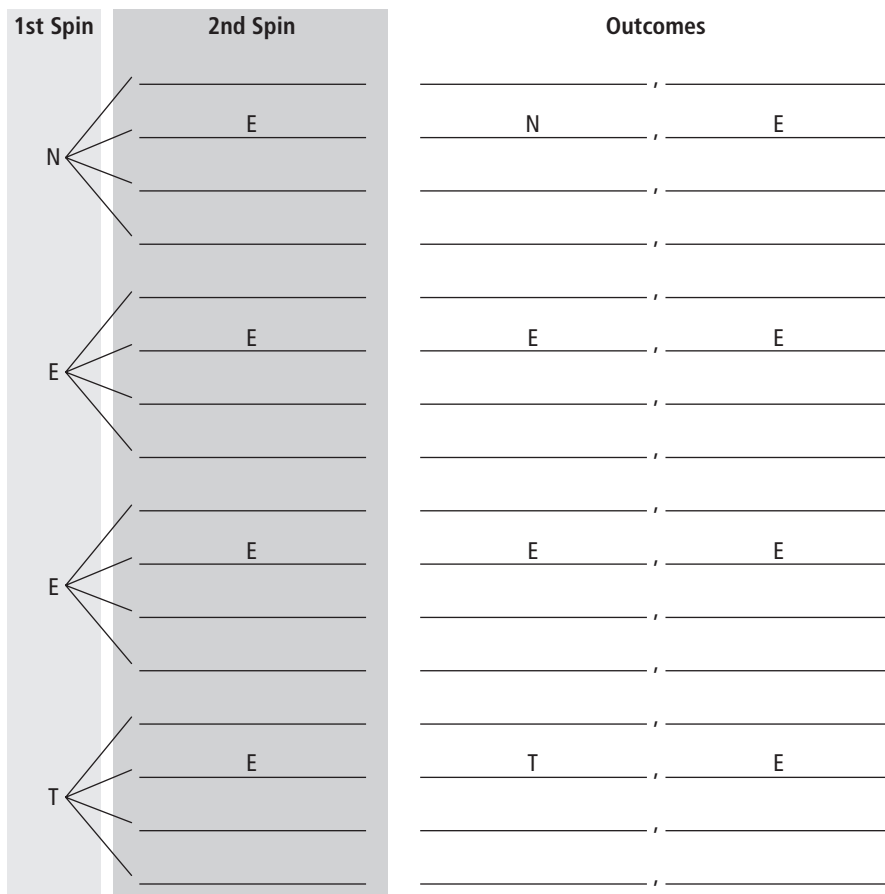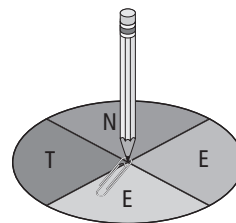**d)** What is the probability she will catch nothing at all?

Sentence: _____

6. You spin the spinner twice.

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

1st Spin	2nd Spin	Outcomes
		_____ , _____
	E	N , E
N		_____ , _____
		_____ , _____
		_____ , _____
	E	E , E
E		_____ , _____
		_____ , _____
		_____ , _____
	E	E , E
E		_____ , _____
		_____ , _____
		_____ , _____
	E	T , E
T		_____ , _____
		_____ , _____

There are _____ possible outcomes.

b) What is the probability of spinning 2 E's?

Sentence: _____

c) What is *P*(same letter on both spins)?

Sentence: _____