Get Ready

Name: _____ Date: _____

BLM 11–2

Fractions, Decimals and Percents

To convert a fraction to a percent, convert the fraction to a decimal number by dividing the numerator by the denominator. Then, multiply the decimal by 100 and add a percent symbol.

$\frac{4}{9} = 0.444\,44\ldots$

$= 0.444\,44\ldots \times 100\%$

$= 44.\overline{4}\%$

Use a bar over the repeating part of a repeating decimal.

1. Write each fraction as a decimal and a percent.

a) $\frac{3}{4}$ **b)** $\frac{1}{6}$

2. Complete the following table.

Fraction	Decimal	Percent
a) $\frac{4}{5}$		
b)	0.66666….	
c) $\frac{4}{11}$		
d)		$33.\overline{3}\%$

Probability

The probability of an event is a measure of the likelihood that it will occur. The probability of an impossible event is 0 or 0%. The probability of a certain event is 1 or 100%.

A coin is flipped. What is the probability that it lands heads up, $P(\text{H})$? Write your answer as a fraction, a decimal, and a percent.

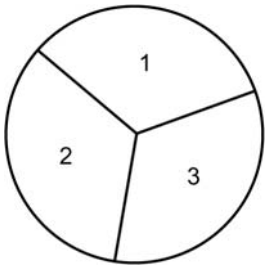
$$P(\text{H}) = \frac{\text{favourable outcomes}}{\text{possible outcomes}}$$

$$= \frac{1}{2}$$

The probability of heads is $\frac{1}{2}$, 0.5, or 50%.

Name: _____ Date: _____

3. The spinner is spun once. Find the following probabilities. Write each answer as a fraction, a decimal, and a percent.



a) What is the probability of spinning 2, $P(2)$?

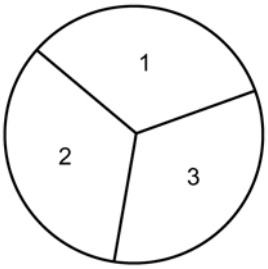
b) What is $P(< 3)$?

c) What is $P(> 3)$? Justify your response.

Using Tables and Tree Diagrams

Tables and tree diagrams are common ways to organize outcomes.

A coin is flipped and a spinner is spun.



a) What is the **sample space** or list of all possible outcomes?

b) How many outcomes are there?

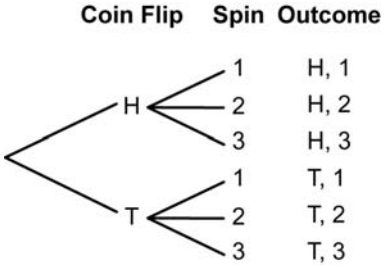
c) What is $P(T, 3)$?

a)

Table

Coin	Spinner		
	1	**2**	**3**
Heads (H)	H, 1	H, 2	H, 3
Tails (T)	T, 1	T, 2	T, 3

Tree Diagram

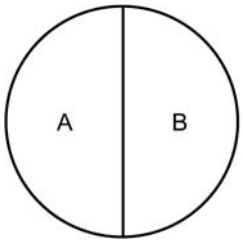


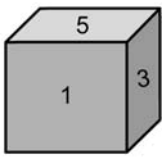
b) There are 6 favourable outcomes: (H, 1), (H, 2), (H, 3), (T, 1), (T, 2), (T, 3).

c) $P(T, 3) = \frac{1}{6}$

$P(T, 3)$ is $\frac{1}{6}$, $0.1\overline{6}$, or $16.\overline{6}\%$.

4. a) Create a table to show the sample space for the spinner and the fair six–sided die.





b) List the sample space.

c) What is $P(A, < 5)$?

Name: _____ Date: _____

5. The following sample space represents all of the outcomes from flipping a coin and spinning a numbered spinner: (H, 1), (T, 1), (H, 2), (T, 2), (H, 3), (T, 3), (H, 4), (T, 4).

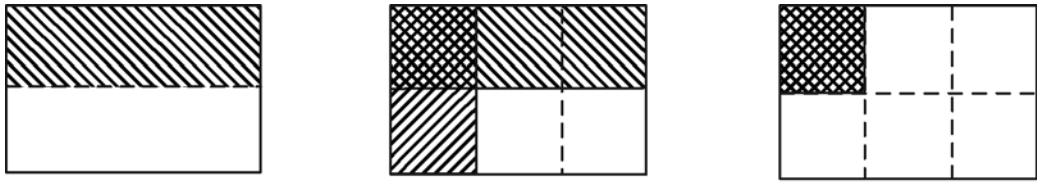
a) Draw the spinner.

b) Display the sample space in a tree diagram.

c) What is *P*(H *or* T, < 5)? Explain your thinking.

Multiplying Fractions

You can use paper folding to multiply proper fractions.



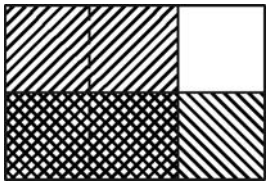
$\frac{1}{2}$ × $\frac{1}{3}$ = $\frac{1}{6}$

To multiply fractions without a diagram, multiply the numerators and multiply the denominators.

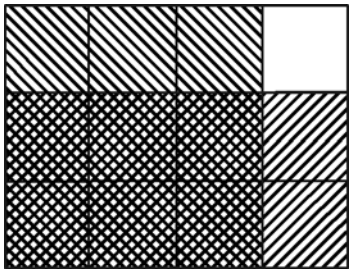
$$\frac{1}{2} \times \frac{1}{3} = \frac{1 \times 1}{2 \times 3}$$
$$= \frac{1}{6}$$

6. What multiplication statement does each diagram represent?

a)



b)



7. Multiply. Show your answer in lowest terms.

a) $\frac{3}{4} \times \frac{1}{5}$ **b)** $\frac{3}{5} \times \frac{5}{6}$ **c)** $\frac{4}{5} \times \frac{2}{3}$