# 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…

= 0.444 44… × 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, $P$(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%.

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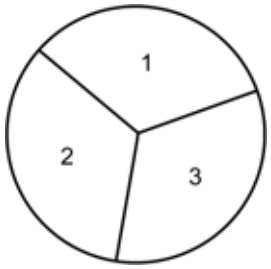
**3.** The spinner is spun once. Find the following probabilities. Write each answer as a fraction, a decimal, and a percent.




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

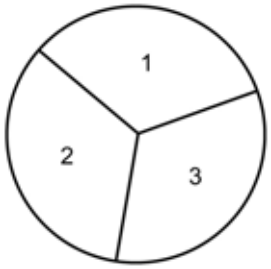
**b)** What is $P(< 3)$?

**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?

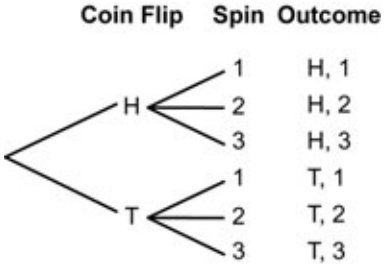
**c)** What is $P(T, 3)$?

**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**

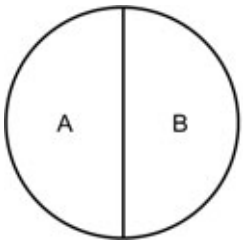


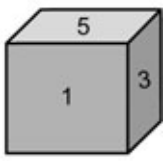

**b)** There are 6 favourable outcomes: (H, 1), (H, 2), (H, 3), (T, 1), (T, 2), (T, 3).

**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 $P(A, < 5)$?

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**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).

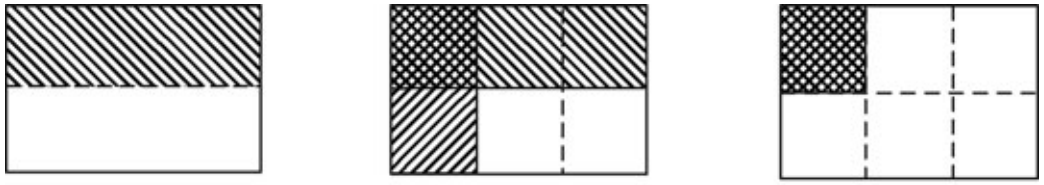
**a)** Draw the spinner.

**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.

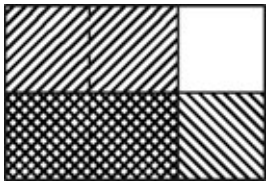



To multiply fractions without a diagram, multiply the numerators and multiply the denominators.

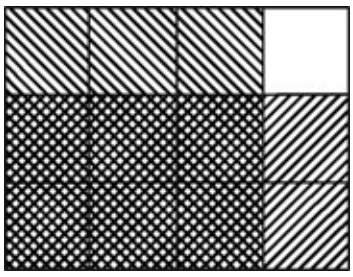
$$\frac{1}{2} \times \frac{1}{3} = \frac{1 \times 1}{2 \times 3}$$
$$= \frac{1}{6}$$

**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)** $\frac{4}{5} \times \frac{2}{3}$