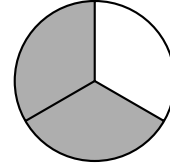


• Modeling Fractions

- The **denominator** of a fraction shows how many equal parts make the whole.
- The **numerator** of a fraction shows how many parts we are describing.
- We can use models to illustrate fractions.

numerator \rightarrow $\frac{2}{3}$ is shaded
 denominator \rightarrow



The fraction $\frac{2}{3}$ is read "two thirds."

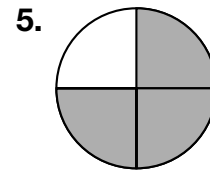
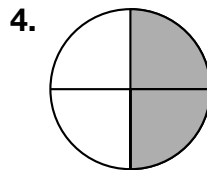
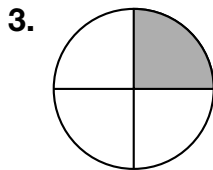
Practice:

Model each fraction shown in problems **1** and **2**. Then draw a picture of each fraction.

1. $\frac{1}{3}$

2. $\frac{3}{5}$

Name each fraction shown in problems **3–5** using digits and words.



6. What is the numerator of the fraction $\frac{5}{8}$? _____

7. What is the denominator of the fraction $\frac{4}{9}$? _____

• Comparing Fractions, Part 1

- We compare two fractions by deciding if the fractions are equal or if one fraction is greater than the other fraction.
- We can compare fractions using manipulatives, pictures or other models.

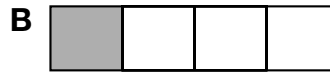
Practice:

Complete each comparison. You may use your fraction manipulatives.

1. $\frac{3}{4} \bigcirc \frac{2}{5}$

2. $\frac{1}{4} \bigcirc \frac{2}{3}$

3. Which rectangle below has the greatest fraction shaded?



4. Draw two circles that are the same size. Shade $\frac{2}{3}$ of one circle and $\frac{3}{4}$ of the other circle.

5. Look at your drawings in problem 4 to compare $\frac{2}{3}$ and $\frac{3}{4}$. Then write the comparison.

• Fractions of a Group

- Sometimes fractions are used to describe parts of a set or group of items.
- The **denominator** shows the total number of items in the set.
- The **numerator** shows the number of items that are described.

Practice:

- Jonathan has 10 coins in his pocket. Of those coins, 5 are quarters. What fraction of his coins are quarters? _____
- What fraction of the names of the days of the week begin with the letter *T*? _____
 Sunday
 Monday
 Tuesday
 Wednesday
 Thursday
 Friday
 Saturday
- What fraction of the names of the days of the week begin with the letter *W*? _____
- What fraction of the letters in the word *BANANA* are vowels? Use words and digits to name the fraction.

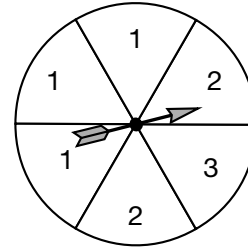
Use this information to answer problems 5 and 6.

Marcos has 5 red pencils, 4 blue pencils, and 1 white pencil.

- What fraction of Marcos's pencils are blue? _____
- What fraction of Marcos's pencils are red? _____

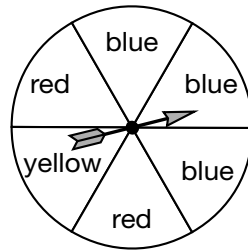
• Probability, Part 1

- The spinner is **more likely** to stop on the number 1 because there are more parts labeled with the number 1.
- The spinner is **less likely** to stop on the number 3 because there are fewer parts labeled with the number 3.

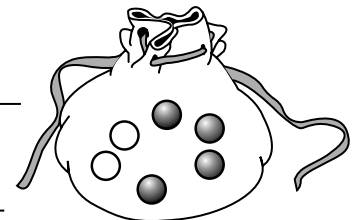


Practice:

Use the spinner to answer problems 1–3.

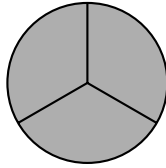


1. Lauren spins the spinner one time. Which color is the spinner more likely to stop on, red or yellow? _____
2. Morgan spins the spinner one time. What color is the spinner most likely to stop on? _____
3. Mathew spins the same spinner one time. Which color is the spinner more likely to stop on, blue or red? _____
4. Ana picked one marble from the bag.
 - a. Which color is more likely to be picked? _____
 - b. Which color is less likely to be picked? _____



- **Fractions Equal to One**
- **Mixed Numbers**

- Fractions can be used to name a whole shape.



$$\frac{3}{3} = 1$$

The numerator and the denominator are the same when a fraction equals 1.

- Amounts that are between whole numbers can be named with a whole number plus a fraction.
- A whole number plus a fraction is called a **mixed number**.
- We read $4\frac{2}{3}$ as “four and two thirds.”

Practice:

1. Draw and shade a circle to represent the fraction $\frac{6}{6}$.

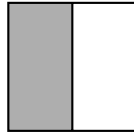
2. Draw rectangles to show $3\frac{1}{2}$.

3. Compare: $\frac{5}{5}$ ○ $\frac{8}{8}$

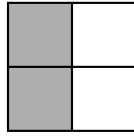
4. Write $6\frac{3}{4}$ using words. _____

• Equivalent Fractions

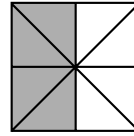
- Equal fractions are called equivalent fractions.
- Each of the fractions shown are equal to $\frac{1}{2}$.



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



$$\frac{2}{4}$$



$$\frac{4}{8}$$

Practice:

You may use your fraction manipulatives for problems 1 and 2.

1. Name a fraction equal to $\frac{1}{4}$. _____

2. Name a fraction equal to $\frac{2}{3}$. _____

3. Draw and shade two circles to show that $\frac{1}{3}$ is equal to $\frac{2}{6}$.

4. Draw and shade two squares to show that $\frac{1}{2}$ is equal to $\frac{3}{6}$.

• **Finding Fractions and Mixed Numbers on a Number Line**

- Fractions can be used to name points on a number line.
- The denominator of each fraction is the total number of segments between 0 and 1. The numerator is the number of segments from 0.

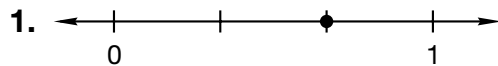


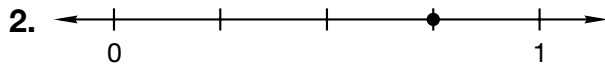
numerator → $\frac{3}{5}$ → number of segments from 0
 denominator → $\frac{3}{5}$ → number of segments between 0 and 1

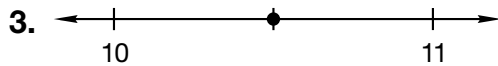
- Mixed numbers can also be located on a number line between two whole numbers.

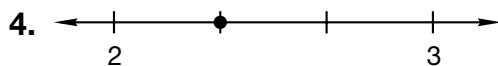
Practice:

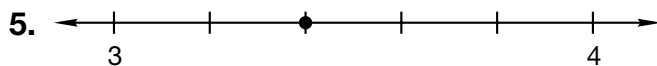
Name the fractions and mixed numbers shown on these number lines.





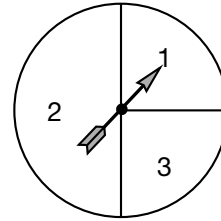






• Probability, Part 2

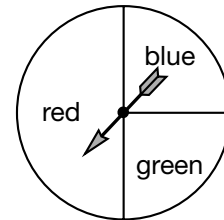
- The spinner is **more likely** to stop on 2 than on 1 because area 2 is larger than area 1.
- The spinner is **less likely** to stop on 3 than on 2 because area 3 is smaller than area 2.
- The spinner is **equally likely** to stop on 1 and 3 because area 1 and area 3 are the same size.



Practice:

For problems 1–3, name the event that is *more likely* to occur.

1. spinning blue or spinning red _____
2. spinning green or spinning blue _____
3. spinning red or spinning green _____



There are 10 coins in a box. Four of the coins are pennies, two are nickels, one is a quarter, and two are dimes. Complete the table below then answer the questions.

4. If you pick a coin from the box without looking, which coin is the least likely to be picked? _____
5. If you pick a coin from the box without looking, which coin likely is the most to be picked? _____

| Coin | Number |
|----------|--------|
| Pennies | |
| Nickels | |
| Dimes | |
| Quarters | |