

# Lesson 5

## Fractional Parts

# Power Up Discussion

## **Problem-Solving Strategy: Find a Pattern**

What are the next three numbers in this sequence?

5, 3, 8, 6, 11, ...

# Solution

5	3	8	6	11			
	-2	+5	-2	+5			

# Numerator

# Denominator

We often use fractions to describe part of a group. A fraction is composed of a **numerator** and a **denominator**.

numerator	$\frac{1}{3}$	number of parts described
denominator		number of equal parts

# Example

A quart is 32 ounces. To find the number of ounces in  $\frac{3}{4}$  of a quart we can divide 32 ounces by 4 ( $32 \div 4 = 8$ ) to find the number of ounces in  $\frac{1}{4}$ . Then we can multiply by 3 ( $3 \times 8 = 24$ ) to find the number of ounces in  $\frac{3}{4}$ .

$$\frac{3}{4} \times 32 \text{ oz} = 24 \text{ oz}$$

# Example

## Example 1

**There were 30 questions on the test. One third of the questions were true-false, and two fifths were multiple choice.**

- a. How many questions were true-false?**
- b. How many questions were multiple choice?**

# Solution

## Solution

- a. To find  $\frac{1}{3}$  of 30 we can divide 30 by the denominator 3. There were **10 true-false questions.**
- b. To find  $\frac{2}{5}$  of 30 we can divide 30 by the denominator 5 and find there are 6 questions in each fifth. Then we multiply 6 by the numerator 2 to find the number of questions in  $\frac{2}{5}$  of 30. There were **12 multiple choice questions.**

# Look at the Denominator

- $1/10^{\text{th}}$
- $1/5$
- $1/2$
- $1/1$
- Progressively bigger

# Example

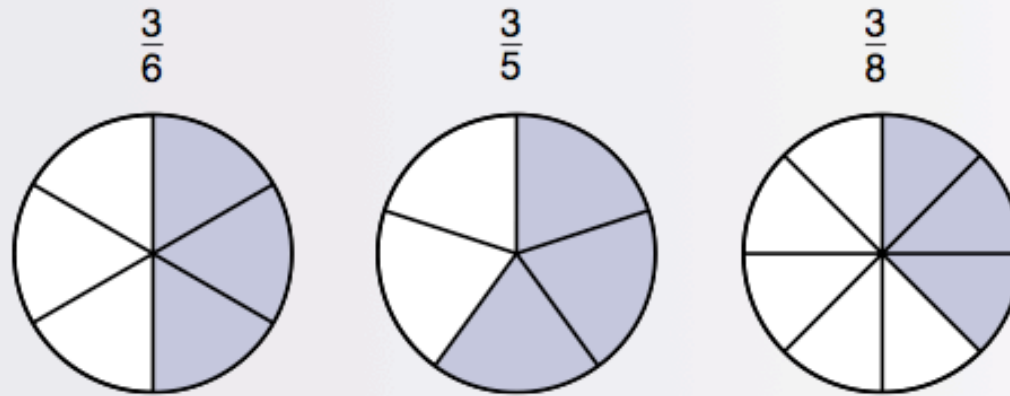
## Example 2

Arrange these fractions from least to greatest.

$$\frac{3}{6}, \frac{3}{5}, \frac{3}{8}$$

# Solution

For each fraction we can ask, “Is the fraction less than  $\frac{1}{2}$ , equal to  $\frac{1}{2}$ , or greater than  $\frac{1}{2}$ ?” To answer the question we compare the numerator and the denominator of each fraction.



We find that  $\frac{3}{8}$  is less than  $\frac{1}{2}$ , that  $\frac{3}{6}$  is equal to  $\frac{1}{2}$ , and that  $\frac{3}{5}$  is greater than  $\frac{1}{2}$ . Therefore, from least to greatest, the fractions are

$$\frac{3}{8}, \frac{3}{6}, \frac{3}{5}$$

# Review

- Numerator goes over denominator

# Homework

- Practice Set and Written Practice
- Due Friday