

## Title: Naming Fractions

*Aim: How can we properly name shaded parts of a fraction?*

Learning Goals:

1. Identify the numerator and denominator of a fraction.
2. Understand that the numerator represents how many equal parts of the denominator in a fraction.
3. Understand that the denominator represents how many parts the whole item has been equally separated into.

Vocabulary:

1. **Fraction** : A portion or part of a whole amount.
2. **Numerator**: The part of the fraction above the bar line (vinculum) that represents how many equal parts of the denominator in a fraction.
3. **Denominator**: The part of the fraction below the bar line (vinculum ) that shows how many parts the whole item has been equally separated into.

### Important Questions:

How can we explain the numerator of a fraction?

How can we explain the denominator of a fraction?

Explain fractions you've experienced in the real world.

### Instructions:

We will be investigating the above questions during this activity. Complete the chart below with responses as you investigate fractions using three phases: Exploration, Explanation and Application. Work with this document and the provided simulations to understand naming fractions with proper numerators and denominators.

1. Click this link [Intro to Fractions](#)
2. This is a screen shot of the website above:

# Fractions: Intro

Intro

Game

Lab

**Exploration Phase:**  
**(5-7 minutes)**

1. Briefly explore this simulator by clicking the Intro tab.
2. Choose the Cake symbol.
3. Click on the increase arrow next to the denominator position of the fraction till you reach 8.
4. Click on the arrows next to the numerator position of the fraction and examine the change.
5. Explore the different combinations of the pie, bar, cylinder and ruler fractions.
6. Press the orange button in the bottom right hand corner of the website if you need to reset the fractions.

Questions

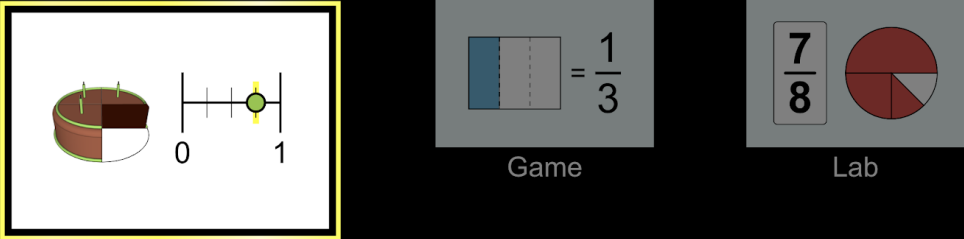
1. Discuss with your neighbor how clicking the arrows next to the denominator position changed the cake illustration ?
2. How did clicking the arrows next to the numerator position change the cake illustration ?
3. Predict what would happen when you split the cake into a  $\frac{3}{8}$  fraction?

**Explanation Phase:**  
**(25-30 minutes)**

Use the Intro tab as a tool that will help you illustrate or name the fraction image.

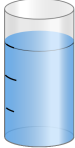

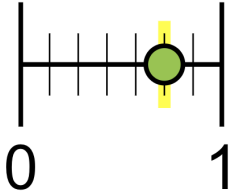
*Aim: How can we properly name shaded parts of a fraction?*

# Fractions: Intro



**Intro**

Below are four different types of fractions. Fill in the box with the fraction name or illustrate the model fractions, use the simulator [Intro to Fractions](#) or ask an assistant peer if you need help completing the chart.

Fraction Word Name	Ruler Model Fraction	Fraction Number Name	Cylinder Model Fraction	Pie Model Fraction
Three fourths				
One eight				
		$\frac{1}{4}$		
Five sevenths				

1. Explain how you would determine the denominator of a fraction?
2. If you wanted to eat half of an apple and two of your friends also wanted a piece of the apple. How much would you give each of your friends? (Hint: Draw an illustration.)

Bonus Extension Question

3. Shawn wanted to eat half of the apple. His 5 friends wanted a piece of the remaining apple. Explain the fraction they would each receive? (Hint: Draw an illustration.)

**Application Phase:**  
(15 minutes)

1. Click the game tab button. Select the red circle level 1 tab if you prefer to make illustration models of the given numeric fractions. Select the rectangular number 1 tab if you prefer to make numeric fractions of the given shaded models.

### Bonus Application Phases

2. You have 15 minutes to complete lessons 1-5. Time yourself and see if you can complete the lessons within 15 minutes. Make a fraction of this data. In the denominator of the fraction write the whole time you were given to complete levels 1 through five. In the numerator of the fraction write the time it took you to finish levels 1 through five. Write this fraction or illustrate the model fraction on a post-it and place it on the bulletin board.

3. Challenge yourself to complete all the levels in a certain amount of time.

### [Fraction Naming Game](#)

Choose your level!

Level 1    Level 2    Level 3    Level 4    Level 5

Level 1    Level 2    Level 3    Level 4    Level 5

Fractions: Intro    Intro    Game    Lab    PhET

Finished: Congratulations. You should have a solid foundation naming fractions.