Name:_____ Date:_____ Period:_____

Building Fraction Sense Using "Fractions Intro PhET Simulation"

By the end of this lesson, you will be able to:

- Identify parts of a fraction and explain similarities and differences between types of fractions.
- Represent fractions through a variety of different representations.

1. Go to https://phet.colorado.edu/en/simulation/fractions-intro. Play with the *Intro* tab for 5 minutes. Write down at least three things that you observed.
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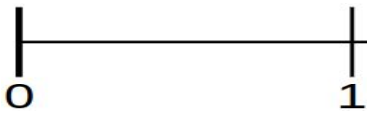
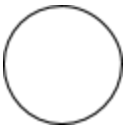
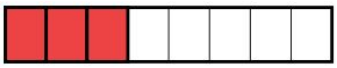
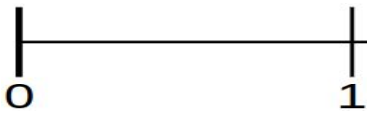
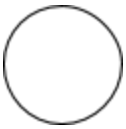
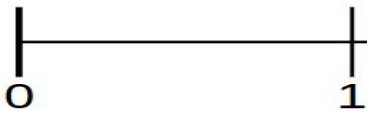
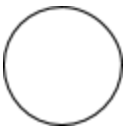
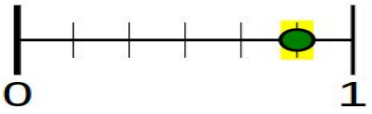
   - •
   - •
   - •
   - •
   - •

2. Fill out the table with your observations.

What happens when you change the **numerator** (top number) of the fraction?	What happens when you change the **denominator** (bottom number) of the fraction?

AND

3. Use the Fractions Intro Simulation to fill out the missing information.

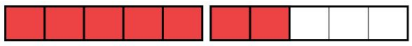
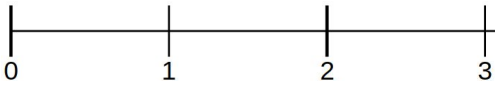
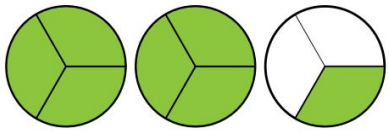
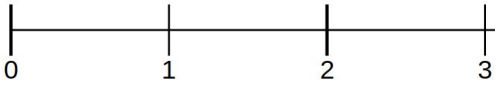
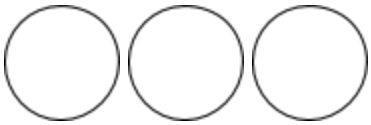
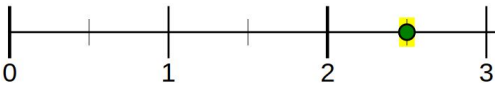
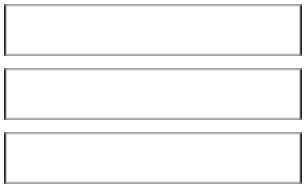
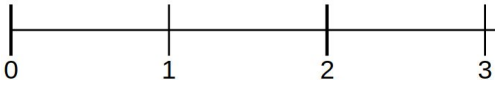
	Circle	Rectangle	Number Line	Proper Fraction
a.				
b.				
c.				$\frac{3}{5}$
d.				

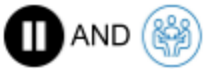
4. In the table above, label the **largest** and **smallest** fraction. Explain how you know.

5. Describe in words and then show how you can put $\frac{2}{3}$ fraction on a numberline.

AND

6. Use the Fractions Intro Simulation to fill out the missing information.
Make sure that you click the "Mixed Number" checkbox on the simulation.

	Circle/Rectangle	Number Line	Improper Fraction	Mixed Number
a.				
b.				
c.				
d.				$2\frac{1}{4}$



7. Discuss the following with your partner/group and write down your ideas.

a. What are the similarities and differences between a *proper* and *improper fraction*? (Look at Tables 1 and 2)

Similarities	**Differences**

b. What are the similarities and differences between an *improper fraction* and a *mixed number*? (Table 2)

Similarities	**Differences**

c. How would you convert $2\frac{3}{5}$ to an improper fraction?

d. How would you convert $\frac{13}{5}$ to a mixed number?