

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_ Class: \_\_\_\_\_

## Exploring Equivalence with Rational Numbers: Part 1

### *Fractions less than or equal to 1*

**Learning Objectives - Students will be able to:**



- Use different representations to recognize and make equivalent pairs of fractions.
- Explain at least one strategy for knowing that two different representations model equivalent fractions.

**LEVEL 1**

1. Open the *Fraction Matcher* simulation. Take **5 minutes** to explore the **Level 1** game. With a partner, talk about a) what you noticed and b) how you know that two representations are equivalent. *Write your ideas in the space below and be ready to share your ideas in a class discussion.*

**LEVEL 2**

2. Before you play the Level 2 game, study the fraction models at the bottom of the screen and complete the table below.
  - a. In the columns below each fraction, draw all the representations from the bottom of the screen that are equivalent to each number.

$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{3}$	$\frac{2}{3}$
Example: 		Example: 	

- b. Next to each representation you drew above, write the fraction represented by the shaded sections.



← Here is an example.

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- c. What relationships do you notice between the numerators and denominators of all the fractions in each column? Write your ideas in the space below.

- d. Now, Pair/Share! Compare and discuss your answers above with your partner.

3. Now, play the **Level 2** game until you earn at least **10 out of 12 points**. If you don't



get at least 10 points, press the  to play a new game. Play as many times as necessary. Ask your partner or teacher a question if you need help making pairs of equivalent fractions.

4. Complete the diagram below by drawing representations of your own equivalent fractions. You can choose to use visual representations, fraction notation, or both.



5. Explain one thing you learned while playing **Level 2**

6. Complete the sentence below

*I am most proud of ...*