Name: _____

Class/Block: _____ Date: _____

<div style="border: 2px solid green; text-align: center;">

Exploration: Locating Equivalent Fractions

</div>

This exploration incorporates the use of a number line to deepen understanding of fraction concepts. During the activity you will explore the location of fractions as well as their equivalent fractions.
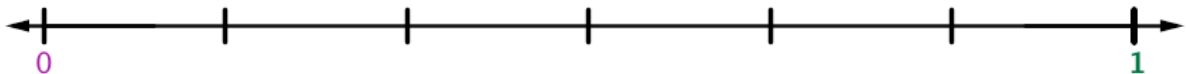
Getting Ready

Launch the **"Where is the Fraction? (1)"** applet. This applet shows a number line from 0 to 1. Notice the **Show hash marks** checkbox is checked and the **Intervals** slider is set to 2.
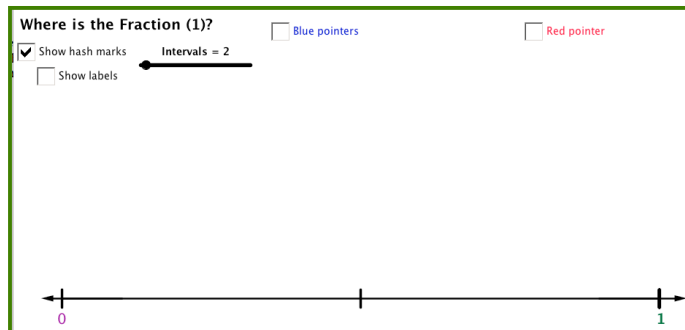
Part I.

1. Slide the **Intervals** slider to 6.
   - Click on **Show labels** on the applet to see the labels under the number line.
   - Record the fractions below the appropriate hash mark on the number line below.

   - Click the **Simplify** check box.
     Record any additional fractions that describe the same locations.   ☑ Simplify
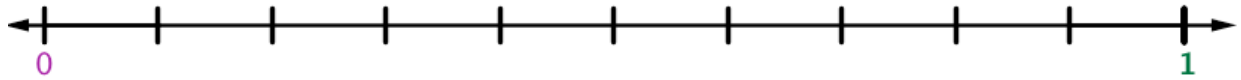
Fraction	Equivalent Fraction (Simplify/reduce to lowest terms)	What number was divided into <u>both</u> the numerator and the denominator to get the simplified fraction?
$\dfrac{2}{6}$		
$\dfrac{3}{6}$		
$\dfrac{4}{6}$		

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2. Un-Click the **Simplify** check box then slide the **Intervals** slider to 10.
   - Click on **Show labels** on the applet to see the labels under the number line.
   - Record the fractions below the appropriate hash mark on the number line below.

   ⟵+—|——+——+——+——+——+——+——+——+——+——|+⟶

   0   1

   - Click the **Simplify** check box.
      Record any additional fractions that describe the same locations.

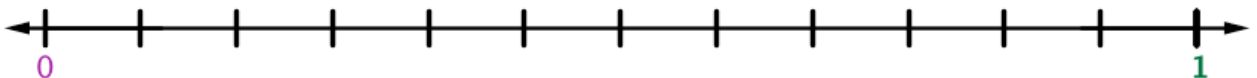 | Fraction | Equivalent Fraction (Simplify/reduce to lowest terms) | What number was divided into <u>both</u> the numerator and the denominator to get the simplified fraction? |
   |----------|------|------|
   | $\dfrac{2}{10}$ | | |
   | $\dfrac{5}{10}$ | | |
   | $\dfrac{8}{10}$ | | |

3. Un-Click the **Simplify** check box then slide the **Intervals** slider to 12.
   - Click on **Show labels** on the applet to see the labels under the number line.
   - Record the fractions below the appropriate hash mark on the number line below.

   ⟵+—|——+——+——+——+——+——+——+——+——+——+——+——|+⟶

   0   1

   - Click the **Simplify** check box.
      Record any additional fractions that describe the same locations.

Fraction	Equivalent Fraction (Simplify/reduce to lowest terms)	What number was divided into <u>both</u> the numerator and the denominator to get the simplified fraction?
$\dfrac{2}{12}$		
$\dfrac{3}{12}$		
$\dfrac{4}{12}$		
$\dfrac{8}{12}$		

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Part II.

1. Given the following fractions, name at least one equivalent fraction.

Given fraction	*Equivalent fraction(s)*
$\dfrac{2}{20}$	
$\dfrac{5}{20}$	
$\dfrac{8}{20}$	
$\dfrac{12}{20}$	
$\dfrac{16}{20}$	

2. On the number line below, show the **given fraction below** its location and an **equivalent fraction above it**.

0   1