## Lesson 9: Explain Equivalence

* Let’s talk about how we know whether two fractions are equivalent.

### Warm-up: Number Talk: Familiar Numbers

Find the value of each expression mentally.

* $10×6$
* $10×12$
* $10×24$
* $5×24$

### 9.1: Pointed Discussion

Andre, Lin, and Clare are representing $\frac{70}{100}$ on a number line.



* Andre said, “Oh, no! We’ll need to partition the line into 100 equal parts and count 70 parts just to mark one point!”
* Lin said, “What if we mark $\frac{7}{10}$ instead? We could partition the line into just 10 parts and count 7 parts.”
* Clare said, “What if we partition the line into 5 parts and mark $\frac{3}{5}$?”

Do you agree with any of them? Explain or show your reasoning.







### 9.2: How Do You Know?

Around the room you will find six posters, each showing either two or three fractions.

With your group, visit at least two posters: one with two fractions and one with three fractions.



For the set of 2 fractions:

* Explain or show how you know the fractions are equivalent.
* Write a new equivalent fraction on a sticky note and add it to the poster. Think of a fraction that hasn’t already been written by someone else.
* We visited poster \_\_\_\_\_\_\_\_\_\_, which shows \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_.
* New equivalent fraction: \_\_\_\_\_\_\_\_\_\_

For the set of 3 fractions:

* Identify 2 fractions that are equivalent. Explain your reasoning.
* We visited poster \_\_\_\_\_\_\_\_\_\_, which shows \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_.



© CC BY 2021 Illustrative Mathematics®