Lesson 5: Fractions on Number Lines

- Let's investigate equivalent fractions on a number line.

Warm-up: Number Talk: A Number Times Twelve

Find the value of each expression mentally.

- 2×12

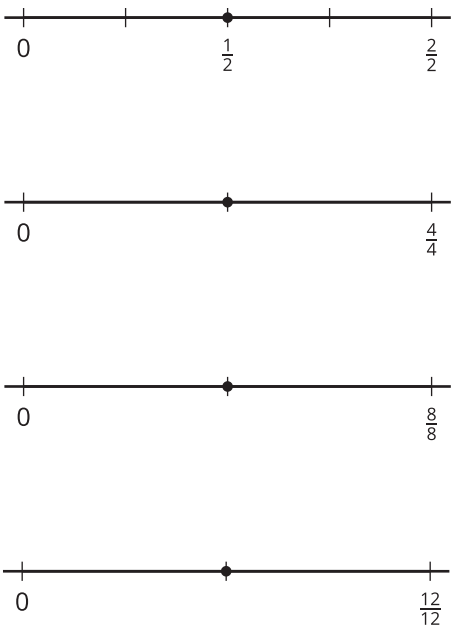
- 4×12

- 8×12

- 16×12

5.1: All Lined Up

1. These number lines have different labels for the tick mark on the far right.



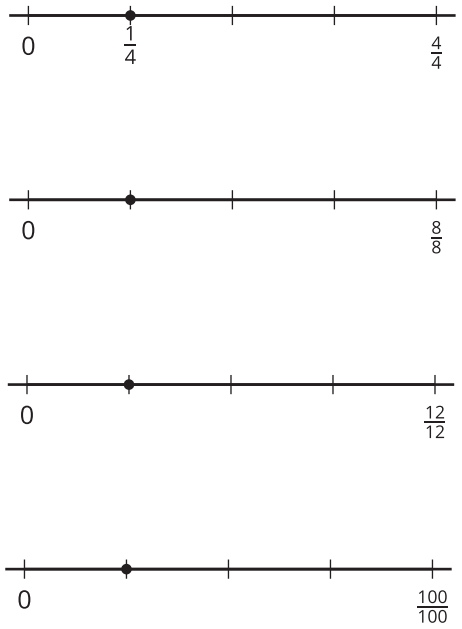
a. Explain to your partner why the tick mark on the far right can be labeled with fractions with different numbers.

b. Label each point with a number it represents (other than $\frac{1}{2}$).

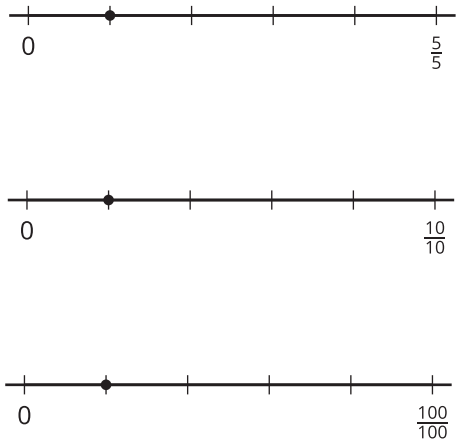
c. Explain to your partner why the fractions you wrote are equivalent.

2. Label the point on each number line with a number it represents. Be prepared to explain your reasoning.

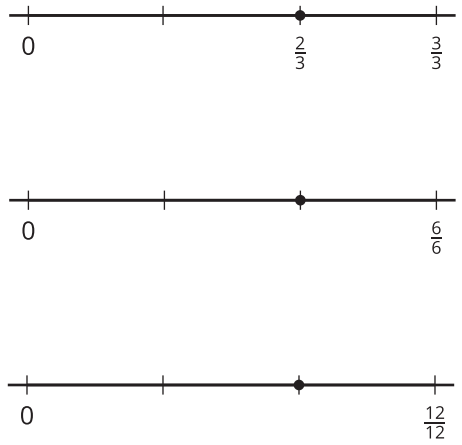
a.



b.



c.

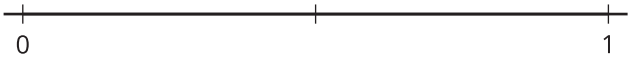


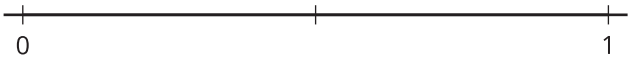
5.2: How Far to Run?

1. Han and Kiran plan to go for a run after school. They are deciding how far to run.

   - Han says, "Let's run $\frac{3}{4}$ of a mile. That's how far I run to my soccer practice."
   - Kiran says, "I can only run $\frac{9}{12}$ of a mile."

   Which distance should they run? Explain your reasoning. Use one or more number lines to show your reasoning.





2. Tyler wants to join Han and Kiran on their run. He says, "How about we run $\frac{7}{8}$ of a mile?"

   Is the distance Tyler suggested the same as what his friends wanted to run? Explain or show your reasoning.