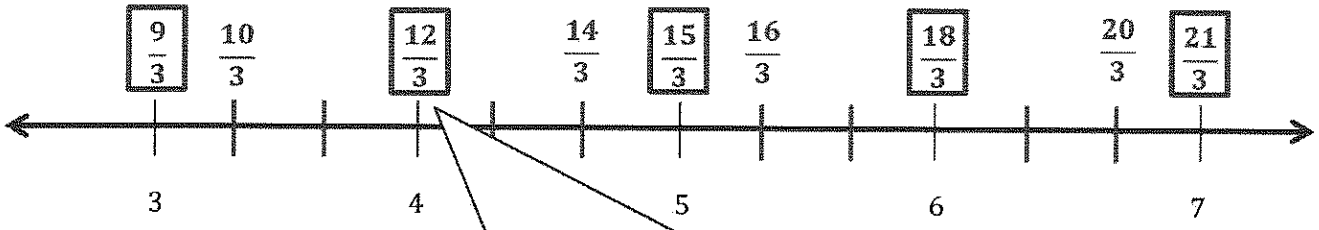
G3-M5-Lesson 17

I notice that all of these fractions are thirds. That means I need to partition my number line into thirds.

1. Locate and label the following fractions on the number line.

$\frac{16}{3}$ $\frac{20}{3}$ $\frac{12}{3}$ $\frac{14}{3}$ $\frac{10}{3}$



The number line begins with 3 because all of the given fractions are greater than 3.

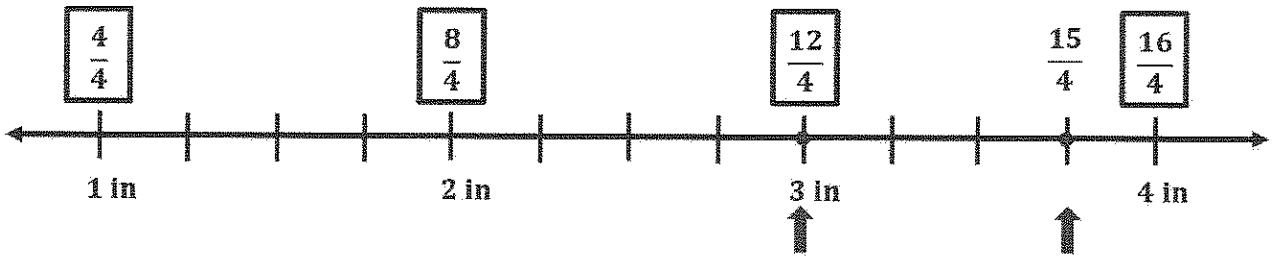
The fractions I have to find and label are out of order. To help me place them on the number line I can first label the whole numbers as thirds. I'll box them so it's easy to remember they represent whole numbers. I can count by threes to find each number of thirds: $1 = 3$ thirds, $2 = 6$ thirds, $3 = 9$ thirds, $4 = 12$ thirds, $5 = 15$ thirds, $6 = 18$ thirds, $7 = 21$ thirds. Now it's easier to label all of the given fractions on the number line.

2. Students measure the lengths of their earthworms in science class. Nathan's measures 3 inches long. Elisha's is $\frac{15}{4}$ inches long. Whose earthworm is longer? Draw a number line to help prove your answer.

I know Elisha's earthworm is measured in fourths, so I need to partition my number line into fourths.

I know that both measurements are greater than 1 inch. I can use that information to choose where to start my number line.

I can label the whole numbers with their equivalent fractions by counting by fours.



Now I can plot and label Nathan's and Elisha's measurements on the number line to compare whose earthworm is longer.

Elisha's earthworm is longer. I can see that 3 inches, or $\frac{12}{4}$, comes before $\frac{15}{4}$ inches on the number line.