

Example 1

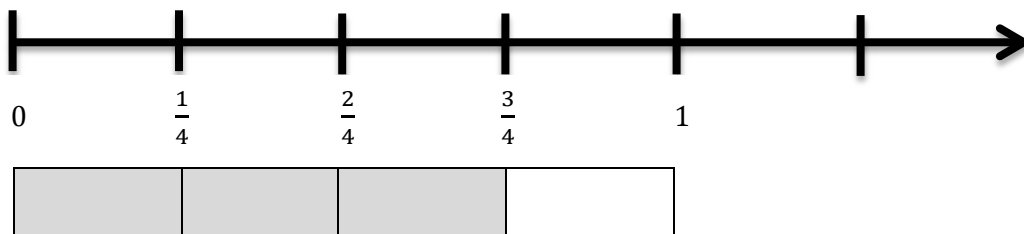
Maria has $\frac{3}{4}$ lb. of trail mix. She needs to share it equally among 6 friends. How much will each friend be given? What is this question asking us to do?

We are being asked to divide the trail mix into six equal portions. So we need to divide three-fourths by six.

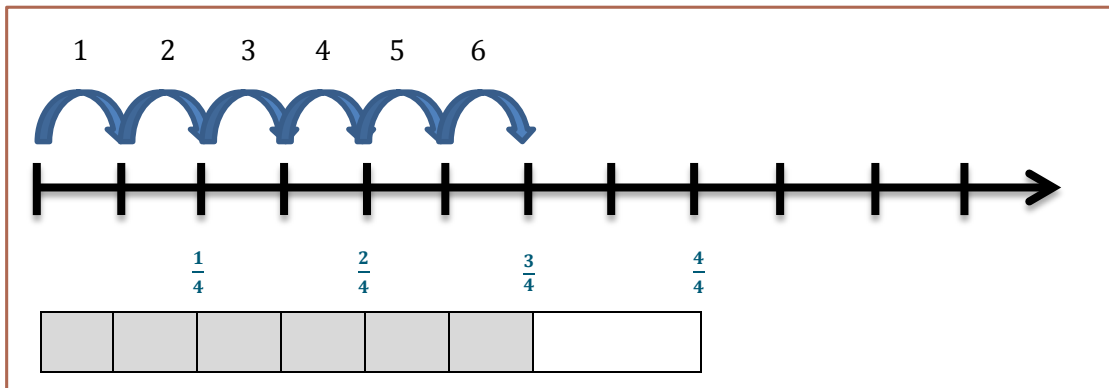
How can this question be modeled?

- Let's take a look at how to solve this using a number line and a fraction bar.

We will start by creating a number line broken into fourths and a fraction bar broken into fourths.



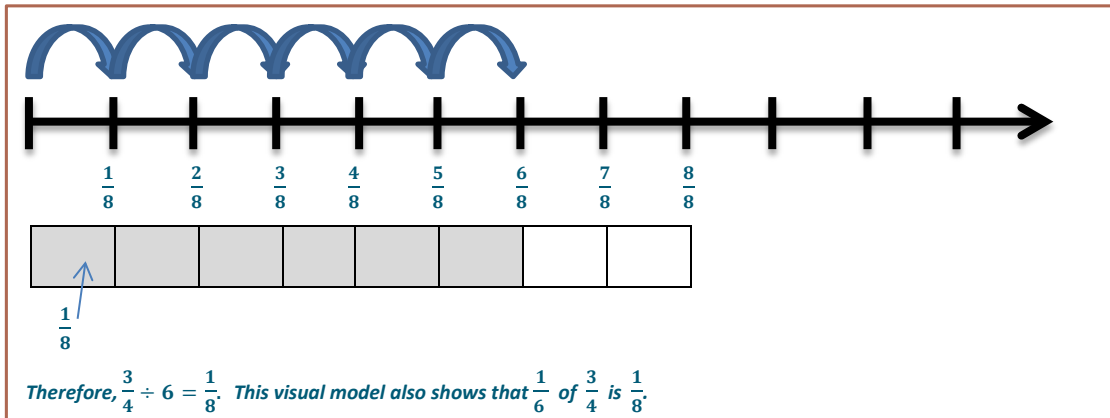
- We are going to give equal amounts of trail mix to each person. How can we show this in the model?
 - We will divide the shaded portion so that it includes six equal-sized pieces.*
- How will we show this on the number line?
 - There are three equal sections on the number line that also need to be divided into six equal shares.*



- Next, we need to determine the unit. What did we do to each of the three sections in the fraction bar?
 - We divided them into two pieces.*
- What should we do to the remaining piece of the fraction bar?
 - Divide it into two pieces.*
- How many pieces are there total?
 - 8 pieces*

- What does each piece or section represent?

$$\square \frac{1}{8}$$



- This is an example of partitive division. You can tell because we were given the original amount of trail mix and how many “parts” of trail mix to make. We needed to determine the size of each part, where the size of each part is less than the original amount.

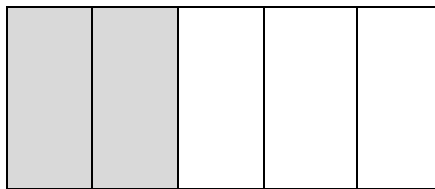
Example 2 (5 minutes)

Example 2

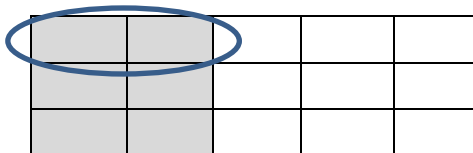
Let’s look at a slightly different example. Imagine that you have $\frac{2}{5}$ of a cup of frosting that you need to share equally between three desserts. How would we write this as a division question?

$$\frac{2}{5} \div 3$$

We can start by drawing a model of two-fifths.



How can we show that we are dividing two-fifths into three equal parts?



What does this part represent?

From the visual model, we can determine that $\frac{2}{5} \div 3 = \frac{2}{15}$.

MP.1
&
MP.2