Unit 3, Lesson 13

Divide Whole Numbers by Unit Fractions

Let's divide a whole number by a unit fraction.

Warm-up

Notice and Wonder: Quilt

What do you notice? What do you wonder?

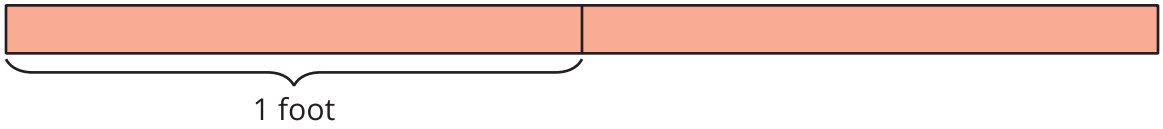


Activity 1

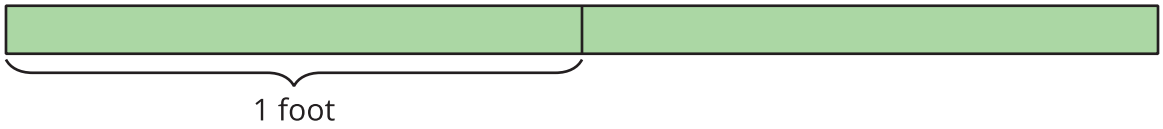
Paper Strips

These diagrams show strips of different colored paper. Each strip is 2 feet long.

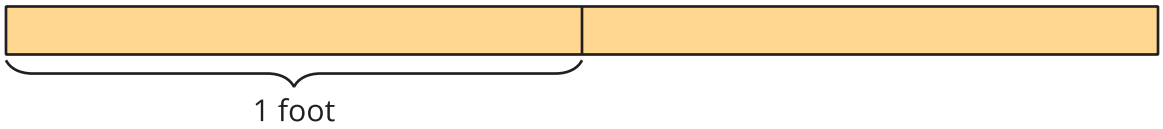
1. The red strip will be cut into pieces that are $\frac{1}{2}$ foot long. How many pieces will there be?



2. The green strip will be cut into pieces that are $\frac{1}{3}$ foot long. How many pieces will there be?



3. The yellow strip will be cut into pieces that are $\frac{1}{4}$ foot long. How many pieces will there be?



4. How are these problems alike? How are they different?

Activity 2

More Paper Strips

Kiran has a yellow strip of paper that is 2 feet long. He cuts the strip into pieces that are $\frac{1}{6}$ foot long.

1. How many pieces does Kiran have? Explain or show your reasoning.

2. Write a division equation to represent the situation.

3. Describe how the equation $3 \div \frac{1}{6} = 18$ represents a strip of paper that is 3 feet long being cut into equal-sized pieces.