Lesson 13: Divide Whole Numbers by Unit Fractions

- Let's divide a whole number by a unit fraction.
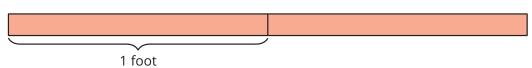
Warm-up: Notice and Wonder: Quilt

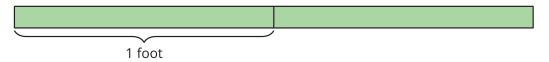What do you notice? What do you wonder?

13.1: Paper Strips

Below are diagrams that show strips of different colored paper. Each strip is 2 feet long. The paper strips will be cut into different sized pieces.
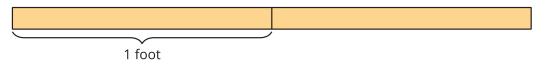
1. The red strip will be cut into pieces that are $\frac{1}{2}$ foot long. How many pieces will there be?

1 foot

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

1 foot

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

1 foot

4. Describe what was the same about the problems you solved. Describe what was different.

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13.2: More Paper Strips

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

1. How many pieces will 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.

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