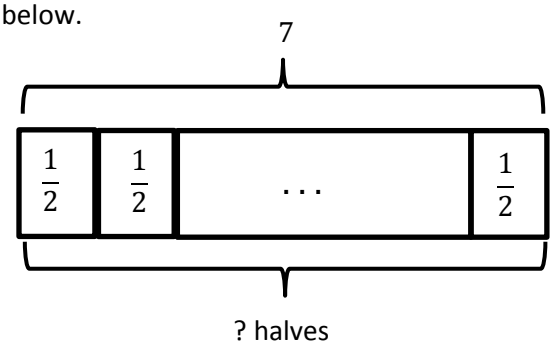
NOTE: Clearly, students will create a wide variety of story problems. One sample is provided for each problem.

Name _____ Date _____

1. Create and solve a division story problem about 7 feet of rope that is modeled by the tape diagram below.

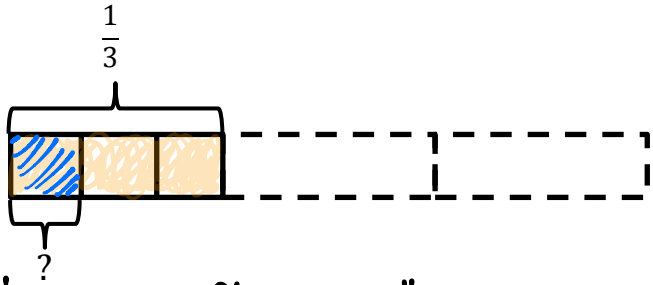


James has 7 feet of rope. He cuts it into equal lengths of $\frac{1}{2}$ foot each. How many pieces of rope will James have?

$7 \div \frac{1}{2} = 7 \times 2 = 14$

James will have 14 pieces of rope.

2. Create and solve a story problem about $\frac{1}{3}$ pound of flour that is modeled by the tape diagram below.



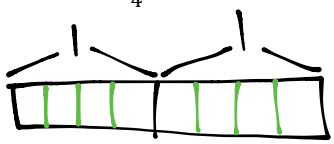
Jasmin poured $\frac{1}{3}$ pound of flour equally into 3 jars. How many pounds of flour will go into each jar?

$\frac{1}{3} \div 3 = \frac{1}{9}$

Each jar will have $\frac{1}{9}$ pound of flour.

3. Draw a tape diagram and create a word problem for the following expressions. Then solve and check.

a. $2 \div \frac{1}{4}$



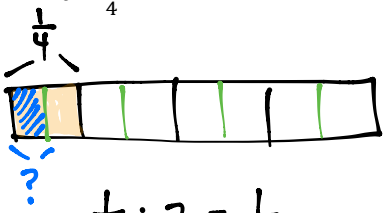
$2 \div \frac{1}{4} = 2 \times 4 = 8$

Check: $8 \times \frac{1}{4} = \frac{8}{4} = 2$ ✓

Martin has 2 cupcakes and cuts each one into fourths. How many pieces will he have altogether?

ANSWER: Martin will have 8 pieces.

b. $\frac{1}{4} \div 2$



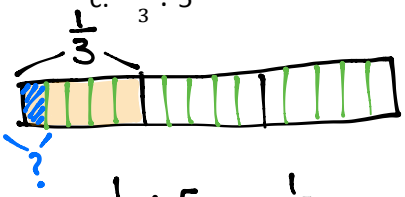
$\frac{1}{4} \div 2 = \frac{1}{8}$

Check: $\frac{1}{8} \times 2 = \frac{2}{8} = \frac{1}{4}$ ✓

Abigail has $\frac{1}{4}$ of a pizza and wants to share it equally with her friend. What fraction of a full pizza will each of the 2 girls get?

ANSWER: Each girl will get $\frac{1}{8}$ of a pizza.

c. $\frac{1}{3} \div 5$



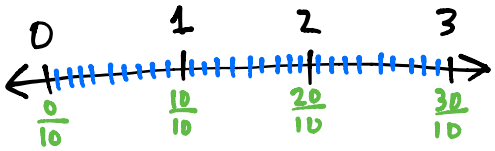
$\frac{1}{3} \div 5 = \frac{1}{15}$

Check: $\frac{1}{15} \times 5 = \frac{5}{15} = \frac{1}{3}$ ✓

Timothy has $\frac{1}{3}$ pound of salami and wants to divide it equally to make 5 sandwiches. How much salami will go on each sandwich?

ANSWER: Each sandwich will have $\frac{1}{15}$ pound of salami.

d. $3 \div \frac{1}{10}$



$3 \div \frac{1}{10} = 3 \times 10 = 30$

Check: $30 \times \frac{1}{10} = \frac{30}{10} = 3$ ✓

Heather is jogging on a track that is $\frac{1}{10}$ km long. If she wants to jog 3 kilometers, how many times will Heather have to go around the track?

ANSWER: She will need to go around the track 30 times.