

Topic C Quiz Prep (Lessons 12 - 17)

Item 1: Consider how tape diagrams appear for different expressions

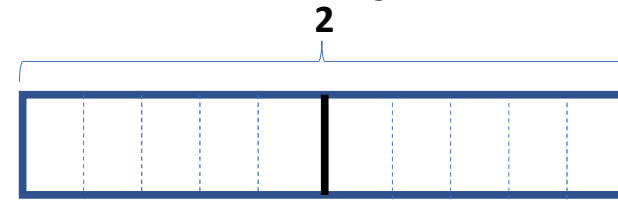
$$\frac{1}{5} \div 2 = \frac{1}{10}$$



$\frac{1}{5}$

Notice how the tape diagram shows fifths and how $\frac{1}{5}$ is being split or divided in $\frac{1}{2}$. The shaded part shows $\frac{1}{10}$.

$$2 \div \frac{1}{5} = 10$$



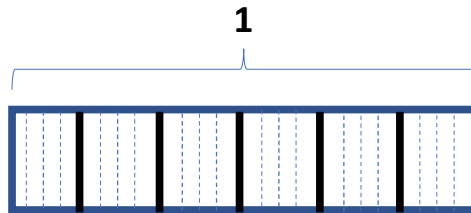
$\frac{1}{5}$

Notice how the entire tape diagram is 2 and how it is split up into fifths. There would be 10 fifths needed to cover the entire tape diagram.

Item 2: Use models to help you divide

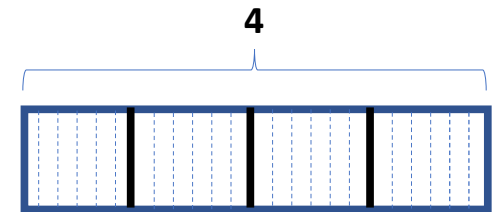
$$\frac{1}{6} \div 4 = \frac{1}{6} \times \frac{1}{4} = \frac{1}{24}$$

Three blue arrows point down from $\frac{1}{6}$, \div , and 4 to $\frac{1}{6}$, \times , and $\frac{1}{4}$ respectively.



$$4 \div \frac{1}{6} = 4 \times \frac{6}{1} = 24$$

Three blue arrows point down from 4 , \div , and $\frac{1}{6}$ to 4 , \times , and $\frac{6}{1}$ respectively.



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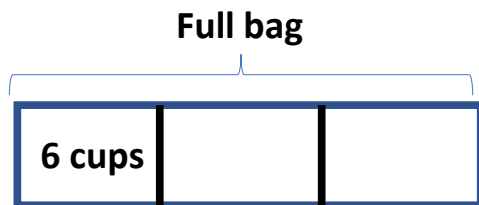
Item 3: Word problem with division of fractions.

Rudra uses **5 cups** of milk to make pudding. Each batch of pudding uses **$\frac{1}{4}$ cup** of milk. How many batches of pudding can Rudra make?

$$\begin{array}{ccc} 5 & \div & \frac{1}{4} \\ \downarrow & \downarrow & \downarrow \\ 5 & \times & \frac{4}{1} = 20 \text{ batches of pudding} \end{array}$$

Item 4: Word Problem with division of fractions.

Paige uses 6 cups of peanuts to make a trail mix snack. The amount of peanuts she uses is $\frac{1}{3}$ of a full bag. How many cups of peanuts are in a full bag?



$$\frac{1}{3} \text{ of } \boxed{\text{FULL BAG}} = 6 \text{ cups}$$

$$6 \text{ cups} \times 3 = 18 \text{ cups in a full bag}$$

$$\begin{array}{c} \text{or} \\ 6 \div \frac{1}{3} \end{array}$$

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Item 5: Match an expression with its description

The number of 1/5 cup servings in 9 cups of water.

$$9 \div \frac{1}{5}$$

The length of a piece of ribbon that is 1/5 of a 9-foot-long ribbon.

$$\frac{1}{5} \times 9$$

The weight of each chunk when 1/5 pound of cheese is cut into 9 equal-size chunks.

$$\frac{1}{5} \div 9$$

Item 6: Greater Than, Less Than, or Equal To?

$$9 \div \frac{1}{5} \quad \underline{\hspace{1cm}} \quad \frac{1}{5} \div 9$$

$$\frac{1}{3} \div 5 \quad \underline{\hspace{1cm}} \quad \frac{1}{3} \times 5$$

$$3 \div 5 \quad \underline{\hspace{1cm}} \quad 3 \times \frac{1}{5}$$

$$9 \div \frac{1}{5} \quad \underline{\hspace{1cm}} \quad 9 \div \frac{1}{2}$$

$$\frac{1}{3} \div 5 \quad \underline{\hspace{1cm}} \quad \frac{1}{3} \div 2$$