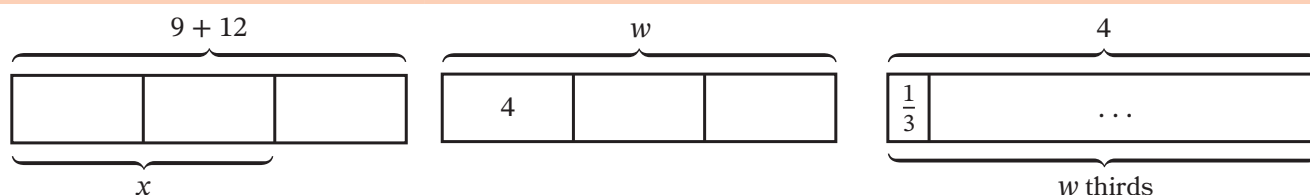


FAMILY MATH

Multi-Step Problems with Fractions

Dear Family,

Your student is learning to use their knowledge of operations and fractions to model and solve multi-step problems that require the use of addition, subtraction, multiplication, and division. Students evaluate expressions with parentheses and use tape diagrams to make sense of the expressions. They recognize that the same equation can be represented in different ways.



The tape diagram shows x is equal to $\frac{2}{3}$ of the sum of 9 and 12, or $x = \frac{2}{3} \times (9 + 12)$.

Both diagrams show $4 \div \frac{1}{3} = w$. On the left, $\frac{1}{3}$ represents the number of groups, and on the right, $\frac{1}{3}$ represents the size of each group.

At-Home Activities

Create Word Problems

Have your student find two sets of objects around your home that can easily be combined, such as cereal pieces and pretzels, or different coins. Have your student combine the items, and then create a word problem for the situation. For example, “I have 16 coins. $\frac{1}{4}$ of my coins are nickels. The rest are pennies. How many pennies do I have?” ($16 \times \frac{3}{4} = 12$ pennies)

Fractions of Rhymes and Tales

Share some of the situations below with your student. Encourage them to explain how they solved.

- “If Jack climbs halfway up the beanstalk in the first hour, and then climbs halfway up the remaining distance in the next hour, how far up the beanstalk does he climb?”
($\frac{1}{2} + \frac{1}{4} = \frac{3}{4}$)
- “If the Muffin Man bakes muffins for 3 hours one day and then for only one third of that time the next day, how many hours does he bake muffins altogether?”
($3 + (\frac{1}{3} \times 3) = 4$)
- “If Little Miss Muffet eats $2\frac{1}{2}$ cups of curds and whey one afternoon, and then eats one half that much the next afternoon, how much does she eat in two afternoons?”
($2\frac{2}{4} + 1\frac{1}{4} = 3\frac{3}{4}$)