

G5-M4-Lesson 16

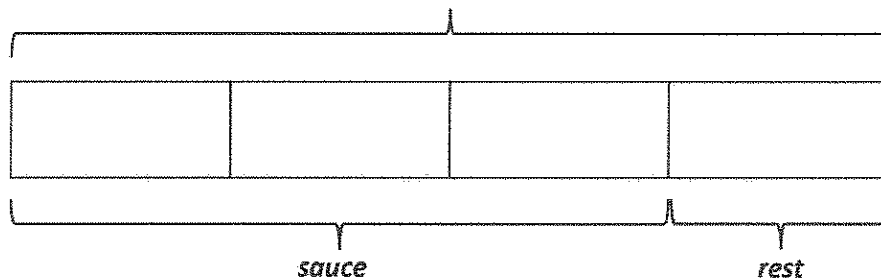
Solve and show your thinking with a tape diagram.

1. Heidi had 6 pounds of tomatoes from her garden. She used $\frac{3}{4}$ of all the tomatoes to make sauce and gave $\frac{2}{3}$ of the rest of the tomatoes to her neighbor. How many ounces of tomatoes did Heidi give to her neighbor?

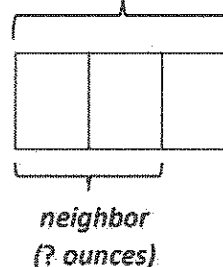
1 pound = 16 ounces

6 pounds = 6×16 ounces = 96 ounces

6 pounds = 96 ounces



After making sauce, Heidi gave $\frac{2}{3}$ of the rest of the tomatoes to her neighbor.



My tape diagram shows me that the total value of the 4 units is 96 ounces. I can divide to find the value of 1 unit, or $\frac{1}{4}$ of 96.

$$4 \text{ units} = 96$$

$$1 \text{ unit} = 96 \div 4 = 24$$

Now I know that Heidi had 24 ounces of tomatoes left after making sauce.

$$\frac{2}{3} \text{ of } 24 = \frac{2 \times 24}{3} = \frac{48}{3} = 16$$

I can find $\frac{2}{3}$ of 24 and know how many ounces Heidi gave to her neighbor.

When I look at my model, I can think of this another way. Heidi gave $\frac{2}{3}$ of $\frac{1}{4}$ to her neighbor.

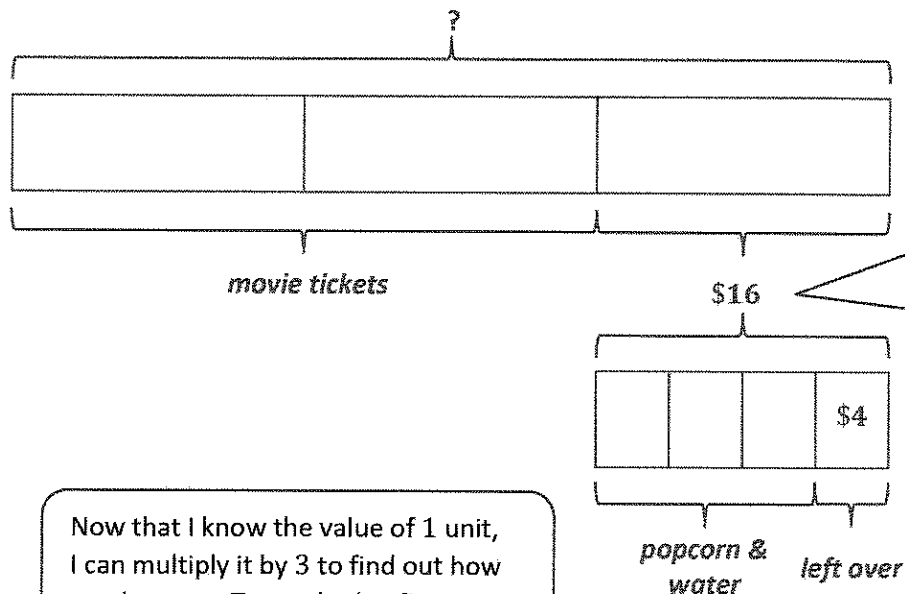
$$\frac{2}{3} \times \frac{1}{4} = \frac{2}{12} = \frac{1}{6}$$

Heidi gave $\frac{1}{6}$ of all the tomatoes to her neighbor.

$$\frac{1}{6} \text{ of } 96 = 16$$

Heidi gave her neighbor 16 ounces of tomatoes.

2. Tracey spent $\frac{2}{3}$ of her money on movie tickets and $\frac{3}{4}$ of the remaining money on popcorn and water. If she had \$4 left over, how much money did she have at first?



I can multiply 4 times \$4 to find out how much money Tracey had remaining after buying the movie tickets.

$$4 \times \$4 = \$16$$

Now that I know the value of 1 unit, I can multiply it by 3 to find out how much money Tracey had at first.

$$1 \text{ unit} = \$16$$

$$3 \text{ units} = 3 \times \$16 = \$48$$

Tracey had \$48 at first.