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Unit 6, Lesson 5: Reasoning about Equations and Tape Diagrams (Part 2)

1. Here are some prices customers paid for different items at a farmer's market. Find the cost for 1 pound of each item.

- a. \$5 for 4 pounds of apples
- b. \$3.50 for $\frac{1}{2}$ pound of cheese
- c. \$8.25 for $1\frac{1}{2}$ pounds of coffee beans
- d. \$6.75 for $\frac{3}{4}$ pounds of fudge
- e. \$5.50 for a $6\frac{1}{4}$ pound pumpkin

(from Unit 4, Lesson 2)

2. Find the products.

- a. $\frac{2}{3} \cdot \left(\frac{-4}{5}\right)$
- b. $\left(\frac{-5}{7}\right) \cdot \left(\frac{7}{5}\right)$
- c. $\left(\frac{-2}{39}\right) \cdot 39$
- d. $\left(\frac{2}{5}\right) \cdot \left(\frac{-3}{4}\right)$

(from Unit 5, Lesson 9)

3. Here are two stories:

- A family buys 6 tickets to a show. They also *each* spend \$3 on a snack. They spend \$24 on the show.
- Diego has 24 ounces of juice. He pours equal amounts for each of his 3 friends, and then adds 6 more ounces for each.

Here are two equations:

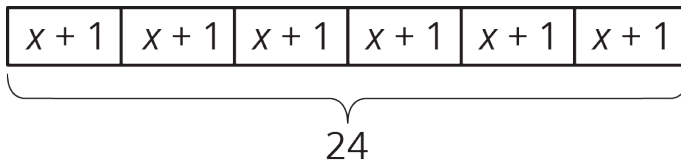
- $3(x + 6) = 24$
- $6(x + 3) = 24$

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- a. Which equation represents which story?
 - b. What does x represent in each equation?
 - c. Find the solution to each equation. Explain or show your reasoning.
 - d. What does each solution tell you about its situation?
4. Here is a diagram and its corresponding equation. Find the solution to the equation and explain your reasoning.



$$6(x + 1) = 24$$

5. Below is a set of data about temperatures. The *range* of a set of data is the distance between the lowest and highest value in the set. What is the range of these temperatures?

9°C , -3°C , 22°C , -5°C , 11°C , 15°C

(from Unit 5, Lesson 7)

6. A store is having a 25% off sale on all shirts. Show two different ways to calculate the sale price for a shirt that normally costs \$24.

(from Unit 4, Lesson 11)