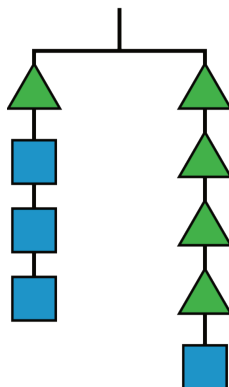


Lesson 12 Practice Problems

1. In this hanger, the weight of the triangle is x and the weight of the square is y .



a. Write an equation using x and y to represent the hanger.

b. If x is 6, what is y ?

2. Andre and Diego were each trying to solve $2x + 6 = 3x - 8$. Describe the first step they each make to the equation.

a. The result of Andre's first step was $-x + 6 = -8$.

b. The result of Diego's first step was $6 = x - 8$.

3. Match each set of equations with the move that turned the first equation into the second.

A. $6x + 9 = 4x - 3$
 $2x + 9 = -3$

B. $-4(5x - 7) = -18$
 $5x - 7 = 4.5$

C. $8 - 10x = 7 + 5x$
 $4 - 10x = 3 + 5x$

D. $\frac{-5x}{4} = 4$
 $5x = -16$

E. $12x + 4 = 20x + 24$
 $3x + 1 = 5x + 6$

1. Multiply both sides by $\frac{-1}{4}$

2. Multiply both sides by -4

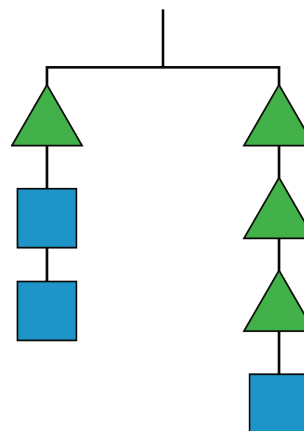
3. Multiply both sides by $\frac{1}{4}$

4. Add $-4x$ to both sides

5. Add -4 to both sides

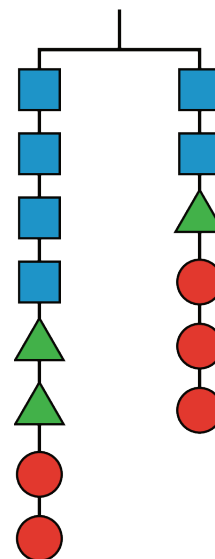
4. What is the weight of a square if a triangle weighs 4 grams?

Explain your reasoning.



5. Here is a balanced hanger diagram.

Each triangle weighs 2.5 pounds, each circle weighs 3 pounds, and x represents the weight of each square. Select *all* equations that represent the hanger.



- A. $x + x + x + x + 11 = x + 11.5$
- B. $2x = 0.5$
- C. $4x + 5 + 6 = 2x + 2.5 + 6$
- D. $2x + 2.5 = 3$
- E. $4x + 2.5 + 2.5 + 3 + 3 = 2x + 2.5 + 3 + 3 + 3$