

6<sup>th</sup> Grade Fast Math  
Solving Equations #4

Name: Key  
Date: \_\_\_\_\_ Per: \_\_\_\_\_

Solve each equation by showing all steps on both sides. Check your solutions.

1. 
$$\begin{array}{r} -3x + 8 = 26 \\ -8 \quad -8 \\ \hline -3x = 18 \\ -3 \quad -3 \\ \hline x = -6 \end{array}$$

2. 
$$\begin{array}{r} 5y - 27 = 23 \\ +27 \quad +27 \\ \hline 5y = 50 \\ \frac{5y}{5} = \frac{50}{5} \\ \hline y = 10 \end{array}$$

Check: 
$$\begin{array}{l} -3x + 8 = 26 \\ -3(-6) + 8 = 26 \\ 18 + 8 = 26 \\ 26 = 26 \end{array}$$

Check: 
$$\begin{array}{l} 5y + (-27) = 23 \\ 5(10) + (-27) = 23 \\ 50 + (-27) = 23 \\ 23 = 23 \end{array}$$

3. 
$$\begin{array}{r} 6 + 7m = -29 \\ -6 \quad +6 \\ \hline 7m = -35 \\ -7 \quad -7 \\ \hline m = 5 \end{array}$$

4. 
$$\begin{array}{r} 79 = -13 + 4n \\ +13 \quad +13 \\ \hline 92 = 4n \\ \frac{92}{4} = \frac{4n}{4} \\ \hline 23 = n \end{array}$$

Check: 
$$\begin{array}{l} 6 + 7m = -29 \\ 6 + 7(5) = -29 \\ 6 + 35 = -29 \\ 41 = -29 \end{array}$$

Check: 
$$\begin{array}{l} 79 = -13 + 4n \\ 79 = -13 + 4(23) \\ 79 = -13 + 92 \\ 79 = 79 \end{array}$$

$$5. \quad \frac{x}{-2} + 8 = 13$$

$$\quad \quad \quad +8 \quad +8$$


---

$$(-2) \frac{x}{-2} = 21(-2)$$

$$\boxed{x = -42}$$

Check:

$$\frac{x}{-2} + (-8) = 13$$

$$\frac{-42}{-2} + (-8) = 13$$

$$21 + (-8) = 13$$

$$13 = 13$$

$$6. \quad \frac{y}{5} + 2 = -10$$

$$\quad \quad \quad -2 \quad -2$$


---

$$5, \frac{y}{5} = -12.5$$

$$\boxed{y = -60}$$

Check:

$$\frac{y}{5} + 2 = -10$$

$$\frac{-60}{5} + 2 = -10$$

$$-12 + 2 = -10$$

$$-10 = -10$$

$$7. \quad -3m - 3.8 = -0.2$$

$$\quad \quad \quad +3.8 \quad +3.8$$


---

$$\frac{-3m}{-3} = \frac{3.6}{-3}$$

$$\boxed{m = -1.2}$$

Check:

$$-3m - 3.8 = -0.2$$

$$-3(-1.2) - 3.8 = -0.2$$

$$3.6 + (-3.8) = -0.2$$

$$-0.2 = -0.2$$

$$8. \quad 2p + 2.5 = -6$$

$$\quad \quad \quad -2.5 \quad -2.5$$


---

$$\frac{2p}{2} = \frac{-8.5}{2}$$

$$\boxed{p = -4.25}$$

Check:

$$2p + 2.5 = -6$$

$$2(-4.25) + 2.5 = -6$$

$$-8.5 + 2.5 = -6$$

$$-6 = -6$$