

Name:

ANSWERS!

Class:



Communication



Successful Partnership



Encouragement



Solving Problem Together



Collaboration

Question 01

Choose the solution for  $x$ .

$$3x - 8 = x + 2$$

$$\begin{array}{r} -x \quad -x \\ 2x - 8 = 2 \\ +8 \quad +8 \\ 2x = 10 \\ x = 5 \end{array}$$

check!

$$3 \cdot 5 - 8 = 5 + 2$$

$$15 - 8 = 7$$

$$7 = 7$$

yes!

(a)

4

(b)

5

(c)

10

Question 02

Solve for  $x$ .

$$3x + 10 = 5x + 4$$

$$\begin{array}{r} 5x + 4 = 3x + 10 \\ -3x \quad -3x \\ 2x + 4 = 10 \\ -4 \quad -4 \\ 2x = 6 \\ x = 3 \end{array}$$

check!

$$3 \cdot 3 + 10 = 5 \cdot 3 + 4$$

$$9 + 10 = 15 + 4$$

$$19 = 19$$

yes!

Question 04

Choose the solution for  $x$ .

$$3x - 1 = 2x + 5$$

$$\begin{array}{r} -2x \quad -2x \\ x - 1 = 5 \\ +1 \quad +1 \\ x = 6 \end{array}$$

check!

$$3 \cdot 6 - 1 = 2 \cdot 6 + 5$$

$$18 - 1 = 12 + 5$$

$$17 = 17$$

yes!

$$7x + 8 = 5x - 2$$

$$\begin{array}{r} 7x + 8 = 5x - 2 \\ -5x \quad -5x \\ 2x + 8 = -2 \\ -8 \quad -8 \\ 2x = -10 \\ x = -5 \end{array}$$

check!

$$7 \cdot (-5) + 8 = 5 \cdot (-5) - 2$$

$$-35 + 8 = -25 - 2$$

$$-27 = -27$$

yes!

(a)

-5

(b)

-3

(c)

3

Question 03

Solve for  $x$ .

Question 05

Solve for  $x$ .

$$2x + 11 = 7x - 4$$

$$\begin{array}{r} 7x - 4 = 2x + 11 \\ -2x \quad -2x \\ \hline 5x - 4 = 11 \\ +4 \quad +4 \\ \hline 5x = 15 \\ \boxed{x = 3} \end{array}$$

check!

$$2 \cdot 3 + 11 = 7 \cdot 3 - 4$$

$$6 + 11 = 21 - 4$$

$$17 = 17$$

yes!

Question 06

Choose the solution for  $x$ .

$$8x - 4 = -3x + 18$$

$$\begin{array}{r} 8x - 4 = -3x + 18 \\ +3x \quad +3x \\ \hline 11x - 4 = 18 \\ +4 \quad +4 \\ \hline 11x = 22 \\ x = 2 \end{array}$$

check!

$$8 \cdot 2 - 4 = -3 \cdot 2 + 18$$

$$16 - 4 = -6 + 18$$

$$12 = 12$$

yes!

(a)	(b)	(c)
-4	-2	<u>2</u>

Question 07

Solve for  $x$ .

$$9x + 12 = 7x + 20$$

$$\begin{array}{r} 9x + 12 = 7x + 20 \\ -7x \quad -7x \\ \hline 2x + 12 = 20 \\ -12 \quad -12 \\ \hline 2x = 8 \\ \boxed{x = 4} \end{array}$$

check!

$$9 \cdot 4 + 12 = 7 \cdot 4 + 20$$

$$36 + 12 = 28 + 20$$

$$48 = 48$$

yes!

Question 08

Choose the solution for  $x$ .

$$-2x - 6 = 4x + 42$$

$$\begin{array}{r} 4x + 42 = -2x - 6 \\ +2x \quad +2x \\ \hline 6x + 42 = -6 \\ -42 \quad -42 \\ \hline 6x = -48 \\ x = -8 \end{array}$$

check!

$$-2 \cdot (-8) - 6 = 4 \cdot (-8) + 42$$

$$16 - 6 = -32 + 42$$

$$10 = 10$$

yes!

(a)	(b)	(c)
-24	-17	<u>-8</u>