

Name:

ANSWERS!

Class:



Communication



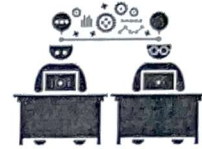
Successful Partnership



Encouragement



Solving Problem Together



Collaboration

Question 01

Choose the solution for x .

$$6(x - 2) = 5x - 10$$

$$6x - 12 = 5x - 10$$

$$\begin{array}{r} -5x \\ -5x \\ x - 12 = -10 \\ +12 \quad +12 \end{array}$$

$$x = 2$$

check!

$$6(2-2) = 5 \cdot 2 - 10$$

$$6(0) = 10 - 10$$

$$0 = 0$$

yes!

(a)

-4

(b)

-2

(c)

2

Question 02

Solve for x .

$$3(x + 2) = 2x + 13$$

$$3x + 6 = 2x + 13$$

$$\begin{array}{r} -2x \\ -2x \\ x + 6 = 13 \\ -6 \quad -6 \end{array}$$

$$x = 7$$

check!

$$3(7+2) = 2 \cdot 7 + 13$$

$$3(9) = 14 + 13$$

$$27 = 27$$

yes!

Question 03

Solve for x .

$$3\left(\frac{1}{3}(5x + 4) = 8\right)$$

$$5x + 4 = 24$$

$$\begin{array}{r} -4 \quad -4 \\ 5x = 20 \end{array}$$

$$5x = 20$$

$$x = 4$$

check!

$$\frac{1}{3}(5 \cdot 4 + 4) = 8$$

$$\frac{1}{3}(20 + 4) = 8$$

$$\frac{1}{3}(24) = 8$$

yes!

(a)

 $3\frac{1}{2}$

(b)

 $5\frac{1}{2}$

(c)

 $8\frac{1}{2}$

Question 04

Choose the solution for x .

$$3\left(\frac{2}{3}(x + 2) = 7\right)$$

$$2(x + 2) = 21$$

$$2x + 4 = 21$$

$$\begin{array}{r} -4 \quad -4 \\ 2x = 17 \end{array}$$

$$2x = 17$$

$$x = 8\frac{1}{2}$$

check!

$$\frac{2}{3}(8.5 + 2) = 7$$

$$\frac{2}{3}(10.5) = 7$$

$$\frac{21}{3} = 7$$

yes!

(a)

 $3\frac{1}{2}$

(b)

 $5\frac{1}{2}$

(c)

 $8\frac{1}{2}$

Question 05

Solve for x .

$$\begin{aligned}6(x - 2) &= 5x \\6x - 12 &= 5x \\-5x \quad -5x \\x - 12 &= 0 \\+12 \quad +12 \\x &= 12\end{aligned}$$

Question 06

Solve for x .

$$\begin{aligned}7\left(\frac{2}{7}(x + 2) = 2\right) \\2(x + 2) &= 14 \\2x + 4 &= 14 \\-4 \quad -4 \\2x &= 10 \\x &= 5\end{aligned}$$

Question 07

Solve for x .

$$\begin{aligned}6\left(\frac{1}{2}x + 5 = \frac{1}{3}(4x - 5)\right) \\3x + 30 &= 2(4x - 5) \\3x + 30 &= 8x - 10 \\8x - 10 &= 3x + 30 \\-3x \quad -3x \\5x - 10 &= 30 \\+10 \quad +10 \\5x &= 40 \\x &= 8\end{aligned}$$

Question 08

Solve for x .

$$\begin{aligned}12\left(\frac{1}{3}x + 2 = \frac{1}{4}(x + 12)\right) \\4x + 24 &= 3(x + 12) \\4x + 24 &= 3x + 36 \\-3x \quad -3x \\x + 24 &= 36 \\-24 \quad -24 \\x &= 12\end{aligned}$$