

Name:

ANSWERS!

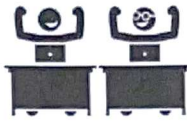
Class:



Communication



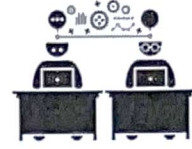
Successful Partnership



Encouragement



Solving Problem Together



Collaboration

Question 01

$$2\left(\frac{7x+6}{2} \leq 3x+2\right)$$

 $x \leq$ 

$$\boxed{-2}$$

$$7x+6 \leq 6x+4$$

$$\begin{array}{r} -6x \\ -6x \end{array}$$

$$x+6 \leq 4$$

$$\begin{array}{r} -6 \\ -6 \end{array}$$

$$x \leq -2$$

Question 02

$$2\left(2x-3 > \frac{2x-5}{2}\right)$$

 $x >$ 

$$\boxed{0.5}$$

$$4x-6 > 2x-5$$

$$\begin{array}{r} -2x \\ -2x \end{array}$$

$$2x-6 > -5$$

$$\begin{array}{r} +6 \\ +6 \end{array}$$

$$2x > 1$$

$$x > 0.5$$

Question 03

$$12\left(\frac{-10+x}{4} + 5 \geq \frac{7x-5}{3}\right)$$

 $x \leq$ 

$$\boxed{2}$$

$$3(-10+x)+60 \geq 4(7x-5)$$

$$-30+3x+60 \geq 28x-20$$

$$3x+30 \geq 28x-20$$

$$28x-20 \leq 3x+30$$

$$\begin{array}{r} -3x \\ +20 \\ -3x \\ +20 \end{array}$$

$$25x \leq 50$$

$$x \leq 2$$

Turn  
Sign around!

Question 04

$$5 + 8x < 3(2x + 4)$$

$$x < \boxed{3.5}$$

$$\begin{aligned} \Rightarrow 5 + 8x &< 6x + 12 \\ &\quad -6x \quad -6x \end{aligned}$$

$$\begin{aligned} 5 + 2x &< 12 \\ &\quad -5 \quad \quad -5 \end{aligned}$$

$$\begin{aligned} 2x &< 7 \\ x &< 3.5 \end{aligned}$$

don't forget to turn sign around!

Question 05

$$4 \left( \frac{3x-5}{4} \leq 6x-1 \right)$$

$$x \geq \boxed{-\frac{1}{21}}$$

$$\begin{aligned} 3x - 5 &\leq 24x - 4 \\ 24x - 4 &\geq 3x - 5 \end{aligned}$$

$$\begin{aligned} -3x &\quad -3x \\ 21x - 4 &\geq 5 \\ +4 &\quad +4 \end{aligned}$$

$$\begin{aligned} 21x &\geq 9 \\ x &\geq \frac{1}{21} \end{aligned}$$

Question 06

$$3 \left( 4 - x < \frac{5x+2}{3} \right)$$

$$x > \boxed{1.25}$$

$$\begin{aligned} \Rightarrow 5x + 2 &> 12 - 3x \\ +3x &\quad +3x \end{aligned}$$

$$\begin{aligned} 8x + 2 &> 12 \\ -2 &\quad -2 \end{aligned}$$

$$\begin{aligned} 8x &> 10 \\ x &> 1.25 \end{aligned}$$

Question 07

$$2 \left( 6 + \frac{7+x}{2} \leq \frac{3x-1}{2} \right)$$

$$x \geq \boxed{10}$$

$$12 + 7 + x \leq 3x - 1$$

$$19 + x \leq 3x - 1$$

$$\begin{aligned} 3x - 1 &\geq 19 + x \\ -x &\quad -x \end{aligned}$$

$$\begin{aligned} 2x - 1 &\geq 19 \\ +1 &\quad +1 \end{aligned}$$

$$2x \geq 20$$

$$x \geq 10$$

Question 08

$$2x + 4 \leq 4(x - 6)$$

$$x \geq \boxed{14}$$

$$\Rightarrow 2x + 4 \leq 4x - 24$$

$$4x - 24 \geq 2x + 4$$

$$\begin{aligned} -2x &\quad -2x \\ 2x - 24 &\geq 4 \\ +24 &\quad +24 \end{aligned}$$

$$\begin{aligned} 2x &\geq 28 \end{aligned}$$