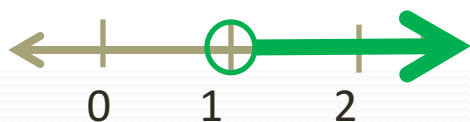


7. $3(x - 2) > -3$

$$3x - 6 > -3$$

$$3x > 3$$

$$x > 1$$



8. $5 + 5(x + 4) \leq 20$

$$5 + 5x + 20 \leq 20$$

$$5x + 25 \leq 20$$

$$5x \leq -5$$

$$x \leq -1$$



9. $3 + \frac{1}{2}(3 - x) < -7$

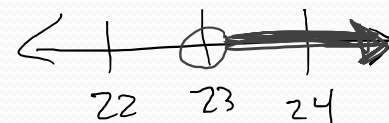
$$3 + \frac{1}{2}(3 - x) < -7$$

$$3 + \frac{3}{2} - \frac{1}{2}x < -7$$

$$\frac{9}{2} - \frac{1}{2}x < -7$$

$$\cdot \frac{-2}{-2} \quad \cdot \frac{-2}{-2}$$
$$-\frac{1}{2}x < -\frac{23}{2}$$

$$x > 23$$



10. $3(x + 6) - 2(x + 2) \geq 10$

$$3x + 18 - 2x - 4 \geq 10$$

$$x + 14 \geq 10$$

$$x \geq -4$$



$$13. x + 1 > -5(7 - 2x)$$

$$x + 1 > -35 + 10x$$

$$-9x + 1 > -35$$

$$-9x > -36$$

$$x < 4$$

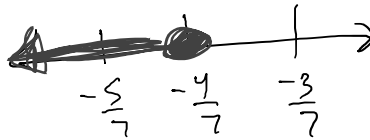


$$15. 2x \leq -\frac{2}{3}(4x + 4)$$

$$2x \leq -\frac{8}{3}x - \frac{8}{3}$$

$$\frac{14}{3}x \leq -\frac{8}{3}$$

$$x \leq -\frac{4}{7}$$



$$17. -5 - 3x \geq 2(10 + 2x) + 3$$

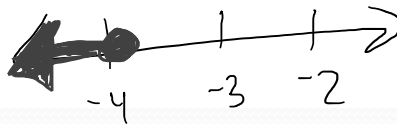
$$-5 - 3x \geq 20 + 4x + 3$$

$$-5 - 3x \geq 23 + 4x$$

$$-5 - 7x \geq 23$$

$$-7x \geq 28$$

$$x \leq -4$$



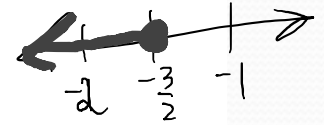
$$14. \frac{5}{3}(6x + 3) \leq 2x - 7$$

$$10x + 5 \leq 2x - 7$$

$$8x + 5 \leq -7$$

$$8x \leq -12$$

$$x \leq -\frac{3}{2}$$



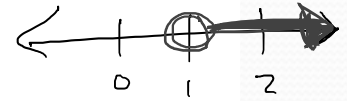
$$16. \frac{1}{2}(-2x - 10) > 3(4 - 6x)$$

$$-x - 5 > 12 - 18x$$

$$17x - 5 > 12$$

$$17x > 17$$

$$x > 1$$



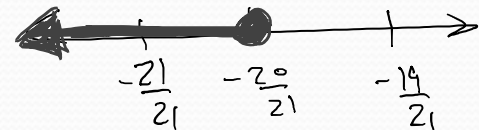
$$18. -3(9x + 20) \geq 15x - 20$$

$$-27x - 60 \geq 15x - 20$$

$$-42x - 60 \geq -20$$

$$-42x \geq 40$$

$$x \leq -\frac{20}{21}$$



Solve the inequality.

$$2(3y - 2) - 4 \geq 3(2y + 7)$$

$$6y \boxed{-4 - 4} \geq 6y + 21$$

$$\begin{array}{r} 6y - 8 \geq 6y + 21 \\ -6y \quad -6y \end{array}$$

$$-8 \geq 21$$

No Solution

Solve the inequality.

$$2x - 7 \leq 5 + 2x$$

$$\begin{array}{r} 2x \leq 12 + 2x \\ -2x \quad \quad -2x \end{array}$$

$$0 \leq 12$$

INFINITE SOLUTIONS

Do 19 and 20 with your group.

19. $8\left(\frac{1}{4}x - 3\right) + 24 < 4(x + 5)$

$$2x - 24 + 24 < 4x + 20$$

$$2x < 4x + 20$$

$$-2x < 20$$

$$x > -10$$

20. $6x - 2(x + 2) > 2 - 3(x + 3)$


$$6x - 2x - 4 > 2 - 3x - 9$$

$$4x - 4 > -3x - 7$$

$$7x - 4 > -7$$

$$7x > -3$$

$$x > -\frac{3}{7}$$



Task (1-5)

Homework: Worksheet