

KEY

1. Solve and graph the solutions.

$$\frac{x}{5} + 4 \geq 2$$

$$\frac{x}{5} \geq -2$$

$$x \geq -10$$



2. Solve and graph the solutions.

$$5y - 3(y - 5) < -3$$

$$5y - 3y + 15 < -3$$

$$2y + 15 < -3$$

$$2y < -18$$

$$y < -9$$



3. Solve and graph the solutions.

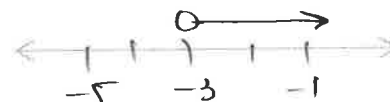
$$2y - 4(y + 3) < -6$$

$$2y - 4y - 12 < -6$$

$$-2y - 12 < -6$$

$$-2y < 6$$

$$y > -3$$



4. Solve and graph the solutions.

$$8 > 14 - 2c \text{ or } 5c - 1 \leq 7c + 3$$

$$-6 > -2c$$

$$-1 \leq 2c + 3$$

$$3 < c$$

$$-4 \leq 2c$$

$$c > 3$$

$$-2 \leq c$$

or

$$c \geq -2$$



Solution: c ≥ -2

5. Solve and graph the solutions.

$$-3c + 5 > 14 \text{ and } -35 \leq 7c$$

$$-3c > 9$$

$$-5 \leq c$$

$$c < -3 \text{ and } c \geq -5$$



Solution: -5 ≤ c < -3

6. Solve and graph the solutions.

$$5 + 2c \leq 9 \text{ or } 18 > 2(3c + 6)$$

$$2c \leq 4$$

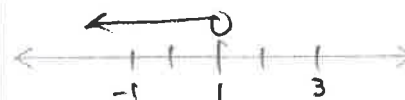
$$18 > 6c + 12$$

$$c \leq 2$$

$$6 > 6c$$

$$1 > c$$

$$\text{or } c < 1$$



Solution: c < 1

7. Solve and graph the solutions.

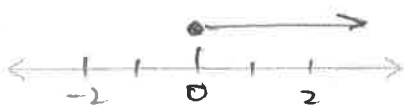
$$5 - (2c + 1) \leq 4 \text{ and } 3c > -15$$

$$5 - 2c - 1 \leq 4 \quad 3c > -15$$

$$-2c + 4 \leq 4 \quad c > -5$$

$$-2c \leq 0$$

$$c \geq 0 \text{ and } c > -5$$



Solution: c ≥ 0

8. Solve and graph the solutions.

$$-11 < 2x - 3 \leq -5$$

$$-8 < 2x \leq -2$$

$$-4 < x \leq -1$$



9. Solve and graph the solutions.

$$2 < x + 3 \leq 4$$

$$-1 < x \leq 1$$

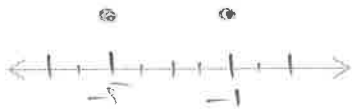


10. Solve and graph the solutions.

$$|x + 3| = 2$$

$$x + 3 = 2 \text{ or } x + 3 = -2$$

$$x = -1 \text{ or } x = -5$$



Solution: $x = -5 \text{ or } -1$

11. Solve and graph the solutions.

$$|2x - 5| = 1$$

$$2x - 5 = 1 \text{ or } 2x - 5 = -1$$

$$2x = 6 \quad 2x = 4$$

$$x = 3 \text{ or } x = 2$$



Solution: $x = 2 \text{ or } 3$

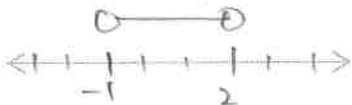
12. Solve and graph the solutions.

$$|2x - 1| < 3$$

$$2x - 1 < 3 \text{ and } 2x - 1 > -3$$

$$2x < 4 \quad 2x > -2$$

$$x < 2 \quad x > -1$$



Solution: $-1 < x < 2$

13. Solve and graph the solutions.

$$|x + 2| \geq 2$$

$$x + 2 \geq 2 \text{ or } x + 2 \leq -2$$

$$x \geq 0 \quad x \leq -4$$



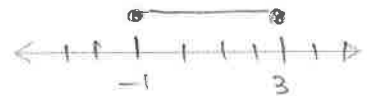
Solution: $x \leq -4 \text{ or } x \geq 0$

14. $|3x - 3| \leq 6$

$$3x - 3 \leq 6 \text{ and } 3x - 3 \geq -6$$

$$3x \leq 9 \quad 3x \geq -3$$

$$x \leq 3 \quad x \geq -1$$



Solution: $-1 \leq x \leq 3$