

INECUACIONES LINEALES

PRÁCTICA

I. Parte: Resuelva las siguientes inecuaciones. Exprese los resultados en notación de intervalo, en notación de conjunto y hacer la gráfica.

1) $x - 5 < 9 - x$

2) $3x - 2 \leq 4x - 3$

3) $8x - 5 > 3x$

4) $\frac{x+4}{3} + 5 \leq \frac{7x-2}{2}$

5) $x - 1 \leq 4x + 8$

6) $-7x \geq 4x - 2$

7) $6x \geq \frac{2-3x}{3}$

8) $9 < \frac{6x+4}{5}$

9) $x - 3 \geq -5$

10) $-6x < 18$

11) $3x + 5 \leq -1$

12) $-\frac{x}{3} > -4$

13) $3(x - 1) + 5 \leq 5(x + 2)$

14) $\frac{3x-2}{2} - 5 > 1 - \frac{x}{4}$

15) $2(2x + 3) \geq 6(x - 2) + 10$

16) $\frac{2x-3}{3} - 2 > \frac{x}{6} - 1$

17) $-9 \leq \frac{2}{3}x - 5 < 7$

18) $-2 - \frac{1+x}{3} < \frac{x}{4}$

19) $2 < x + 3 < 5$

20) $-8 \leq 3x - 5 < 7$

21) $-3 < 2x + 3 \leq 9$



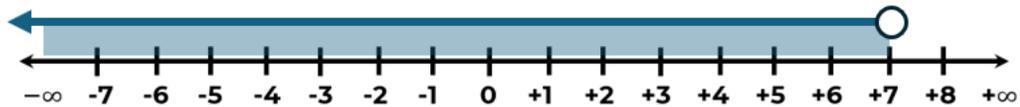
Respuestas impares:

1) $x - 5 < 9 - x$

$$x < 7$$

$$(-\infty, 7)$$

$$\{x \in \mathbb{R}: x < 7\}$$

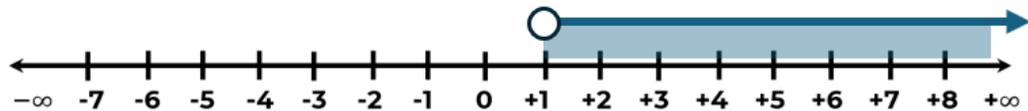


3) $8x - 5 > 3x$

$$x > 1$$

$$(1, +\infty)$$

$$\{x \in \mathbb{R}: x > 1\}$$

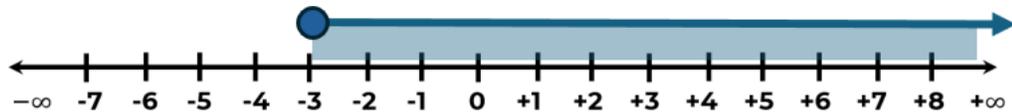


5) $x - 1 \leq 4x + 8$

$$x \geq -3$$

$$[-3, +\infty)$$

$$\{x \in \mathbb{R}: x \geq -3\}$$

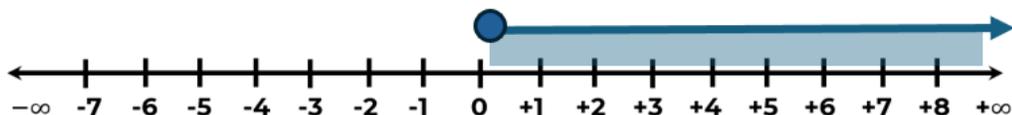


7) $6x \geq \frac{2-3x}{3}$

$$x \geq \frac{2}{21}$$

$$\left[\frac{2}{21}, +\infty\right)$$

$$\{x \in \mathbb{R}: x \geq \frac{2}{21}\}$$

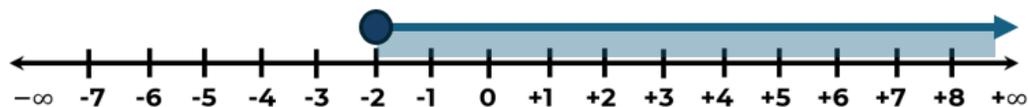


9) $x - 3 \geq -5$

$x \geq -2$

$[-2, +\infty)$

$\{x \in R: x \geq -2\}$

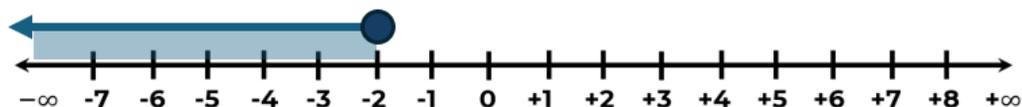


11) $3x + 5 \leq -1$

$x \leq -2$

$(-\infty, -2]$

$\{x \in R: x \leq -2\}$

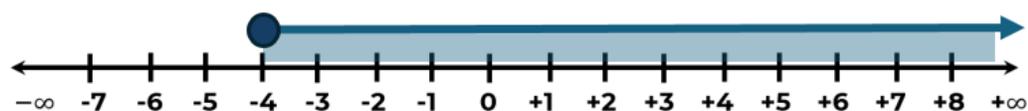


13) $3(x - 1) + 5 \leq 5(x + 2)$

$x \geq -4$

$[-4, +\infty)$

$\{x \in R: x \geq -4\}$

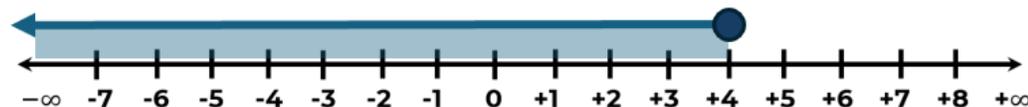


15) $2(2x + 3) \geq 6(x - 2) + 10$

$x \leq 4$

$(-\infty, 4]$

$\{x \in R: x \leq 4\}$

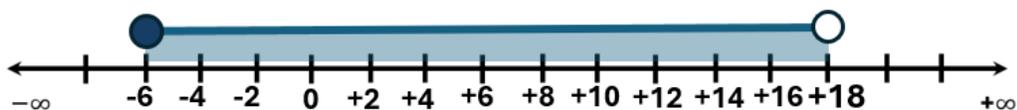


17) $-9 \leq \frac{2}{3}x - 5 < 7$

$$-6 \leq x < 18$$

$$[-6, 18)$$

$$\{x \in \mathbb{R} : -6 \leq x < 18\}$$

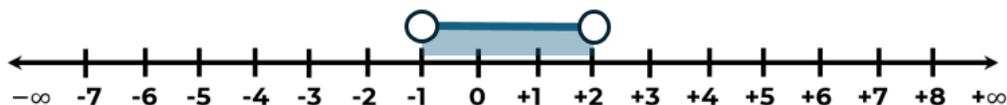


19) $2 < x + 3 < 5$

$$-1 < x < 2$$

$$(-1, 2)$$

$$\{x \in \mathbb{R} : -1 < x < 2\}$$



21) $-3 < 2x + 3 \leq 9$

$$-3 < x \leq 3$$

$$(-3, 3]$$

$$\{x \in \mathbb{R} : -3 < x \leq 3\}$$

