

1. $x + 4 > 9$

Subtract 4

Answer: $x > 5$

2. $3x \leq 12$

Divide by 3

Answer: $x \leq 4$

3. $-2x < 10$

Divide by -2 and FLIP the sign

Answer: $x > -5$

4. $2x + 1 \geq 7$

Subtract 1: $2x \geq 6$

Divide by 2

Answer: $x \geq 3$

5. $5 - x > 2$

Subtract 5: $-x > -3$

Divide by -1, FLIP

Answer: $x < 3$

6. $3x - 4 < 2x + 6$

Subtract $2x$: $x - 4 < 6$

Add 4

Answer: $x < 10$

7. $-3 < x + 2 \leq 5$

Subtract 2 from ALL THREE parts

Answer: $-5 < x \leq 3$

8. $1 < 2x - 3 < 9$

Add 3 to all parts: $4 < 2x < 12$

Divide all by 2

Answer: $2 < x < 6$

9. $4(1 - x) \geq 2x - 8$ ★ challenge

Distribute: $4 - 4x \geq 2x - 8$

Add $4x$: $4 \geq 6x - 8$

Add 8: $12 \geq 6x$

Answer: $x \leq 2$

10. $-6 \leq 3(x - 2) < 9$ ★ challenge

Distribute: $-6 \leq 3x - 6 < 9$

Add 6 to all: $0 \leq 3x < 15$

Divide all by 3

Answer: $0 \leq x < 5$