

Unit 4: Linear Inequalities and Systems

CONCEPT

Name: _____ Date: _____

Solve each problem. Write your answer in the simplest exact form (a number, fraction, or "yes"/"no").

1. Solve for x : $x + 4 < 9$. Give the boundary value of x (the number x is less than).

Answer: _____

2. Solve for x : $x - 3 > 2$. Give the boundary value of x (the number x is greater than).

Answer: _____

3. Solve for x : $5x \leq 20$. Give the boundary value of x (the number x is less than or equal to).

Answer: _____

4. Solve for x : $x/2 \geq 6$. Give the boundary value of x (the number x is greater than or equal to).

Answer: _____

5. Solve for x : $-x < 3$. When you multiply both sides by -1 , the inequality sign flips. Give the boundary value of x .

Answer: _____

6. Solve for x : $3x > 9$. Give the boundary value of x .

Answer: _____

7. Is $x = 4$ a solution to the inequality $x + 1 > 6$? Answer yes or no.

Answer: _____

8. Is $x = 7$ a solution to the inequality $2x < 20$? Answer yes or no.

Answer: _____

9. Solve for x : $2x + 1 < 11$. Give the boundary value of x .

Answer: _____

10. Solve for x : $-2x \leq 8$. Remember to flip the sign when dividing by a negative. Give the boundary value of x .

Answer: _____

11. Check the point $(2, 3)$ in the inequality $y > x$. Is the point a solution? Answer yes or no.

Answer: _____