

Unit 4: Linear Inequalities and Systems

PRACTICE

Name: _____ Date: _____

Solve each problem. Write inequalities with the variable on the left; give coordinate answers as (x, y) .

1. Solve for x : $x + 7 < 12$

Answer: _____

2. Solve for x : $x - 4 \geq 3$

Answer: _____

3. Solve for x : $5x \leq 35$

Answer: _____

4. Solve for x , and give the exact answer: $3x > 21$

Answer: _____

5. Solve for x : $-2x < 10$ (remember to flip the inequality sign when dividing by a negative)

Answer: _____

6. Solve for x : $2x + 3 \leq 11$

Answer: _____

7. Solve for x : $4x - 5 > 7$

Answer: _____

8. Solve for x : $-3x + 1 \geq 10$

Answer: _____

9. Solve for x , giving the answer as a fraction: $4x < 3$

Answer: _____

10. Is the point $(2, 5)$ a solution to the inequality $y > 3x - 2$? Answer yes or no.

Answer: _____

11. Is the point $(1, 1)$ a solution to the inequality $y \leq 2x - 4$? Answer yes or no.

Answer: _____

12. Find the point of intersection of the boundary lines of the system $y = x + 1$ and $y = -x + 5$. Give the answer as a coordinate pair (x, y) .

Answer: _____