

ALGEBRA 1
CHAPTER 3 REVIEW

Name _____
Date _____

Determine if the given value makes the inequality true or false.

1. $-5x + 7 \geq 15$; $x = -2$

2. $\frac{8-3m}{4} < 0$; $m = 2$

Solve and graph each inequality.

3. $12 < n + 8$



4. $-\frac{x}{3} \geq -12$

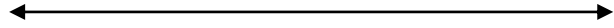


5. $\frac{2a - 16}{5} \geq 2$



Solve and graph each inequality.

6. $\frac{3}{2} \leq \frac{x}{4} + 1$



7. $\frac{3 - 4m}{2} \geq 6$




8. $3(-x - 6) < 2(2x + 8) + 1$




9. Explain the difference between an “and” compound inequality versus an “or” compound inequality.

Solve each compound inequality and graph the solution set.

10. $2 + 3x > 8$ or $4 - 7x \geq -17$ 

11. $1 \leq \frac{2y + 3}{4} < 3$ 

12. $|-4x + 8| \leq 16$ 

13. $\left| \frac{3 - 2x}{5} \right| > 1$ 

For each word problem, define a variable, write an inequality, solve and answer in a sentence.

14. Juan want to buy two shirts and a pair of jeans. Each shirt costs \$18.50.
If Juan wants to spend at most \$78, how much can he spend on a pair of jeans.
15. A farmer wants to enclose a large rectangular plot of land for a garden. He wants the perimeter of the garden to be at least 200 feet. He also would like the length of the garden to be 40 feet more than twice the width. What are the minimum dimensions that the farmer should consider?