

Name: _____

Date: _____

Period: _____

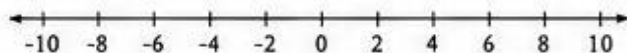
QUIZ: SOLVING INEQUALITIES

Directions: Solve each inequality. Show your work when necessary. Graph the solution on a number line for problems 1–10.

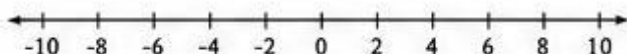
PART I: ONE-STEP INEQUALITIES

Solve each inequality and graph the solution.

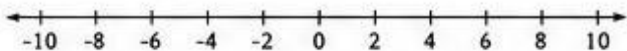
1. $x + 7 > 12$



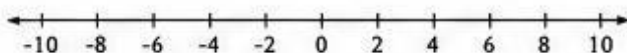
2. $x - 5 \leq 3$



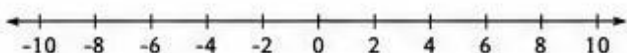
3. $-2x > 8$



4. $\frac{x}{3} \geq -2$



5. $-x + 4 < 1$

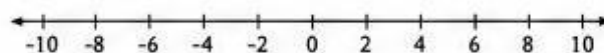


PART II: TWO-STEP INEQUALITIES

Solve each inequality and graph the solution.

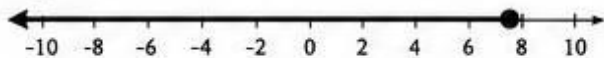
6. $2x + 3 > 11$

$x > 5$

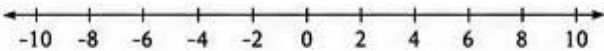


7. $-3x - 4 \leq 5$

$x \leq 8$



8. $4(x - 2) < 8$



9. $\frac{x+5}{2} \geq 3$



10. $5 - 2x > -7$



PART III: WORD PROBLEMS

Solve each problem. Write your solution using an inequality and in a sentence.

11. A number is greater than -3 and less than or equal to 7 . Write and solve the inequality.

12. You must be at least 13 years old to ride a roller coaster. Write and solve the inequality.

13. The temperature must stay above -10°F and below 90°F . Write and solve the compound inequality.

14. A store is having a sale on shirts. They were originally $\$25$, and they are now on sale for less than $\$18$. Write and solve the inequality for the amount of discount, d , in dollars.
