

Name: _____ Date: _____ Score: ____ / 10

INSTRUCTIONS

For multiple-choice questions, circle the letter of the correct answer. For short-answer and problem-solving questions, show your complete work in the space provided. No calculator unless your teacher says otherwise.

1 Solve: $3x - 4 > 8$

Multiple Choice

☐ **A** $x > 4$

☐ **B** $x < 4$

☐ **C** $x > -4$

☐ **D** $x > 4/3$

2 Solve: $-2x + 5 \leq 11$

Multiple Choice

☐ **A** $x \geq -3$

☐ **B** $x \leq -3$

☐ **C** $x \geq 3$

☐ **D** $x \leq 3$

3 Short Answer — Solve the compound inequality: $-3 < 2x + 1 \leq 7$

Short Answer

4 When graphing $x \geq -3$ on a number line, which is correct?

Multiple Choice

☐ **A** Open circle at -3 , shading to the right☐ **B** Closed circle at -3 , shading to the right☐ **C** Closed circle at -3 , shading to the left☐ **D** Open circle at -3 , shading to the left**5 Solve: $|x - 4| = 6$**

Multiple Choice

☐ **A** $x = 10$ or $x = -2$

☐ **B** $x = 10$ only

☐ **C** $x = -10$ or $x = 2$

☐ **D** No solution

6 Solve: $|2x + 1| < 9$

Multiple Choice

☐ **A** $-5 < x < 4$

☐ **B** $x < -5$ or $x > 4$

☐ **C** $-4 < x < 5$

☐ **D** $x > 4$

7 Short Answer — Solve: $5x - 3 \geq 2x + 9$

Short Answer

8

Which ordered pair is a solution to $y < 2x - 1$?

Multiple Choice

A

(0, 0)

B

(3, 1)

C

(-1, 0)

D

(2, 5)

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Problem Solving — A parking garage charges \$5 plus \$2 per hour. Write and solve an inequality to find how many hours (h) you can park if you have at most \$17 to spend.

Problem Solving

10

Problem Solving — For the inequality $y \leq -x + 3$, describe the boundary line (slope, y-intercept, solid or dashed) and state which side of the line should be shaded. Justify using a test point.

Problem Solving