

College Algebra

Name: _____

Study Guide 2

Class: _____

Due Date: _____

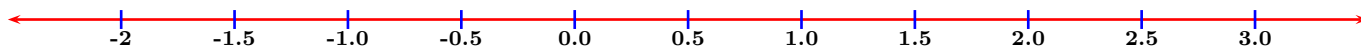
Score: _____

No Work \Leftrightarrow No Points

Use Pencil Only \Leftrightarrow Be Neat & Organized

1. (3 points) Solve, graph, then give your final answer in set-builder notation:

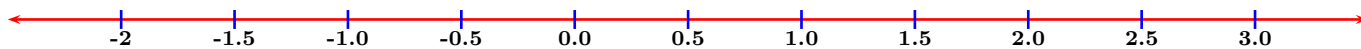
$$-8 \leq 4x - 6 < 2$$



1. _____

2. (4 points) Solve, graph, then give your final answer in interval notation:

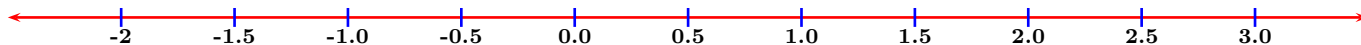
$$-1 \leq -3x + 5 \leq 5$$



2. _____

3. (3 points) Solve, graph your solution:

$$-10 \leq -4x - 6 < 2$$



4. (3 points) Solve: $|4x - 7| = 9$

4. _____

5. (3 points) Solve: $|5x + 9| = |2x - 6|$

5. _____

6. Solve

(a) (1 point) $|2x - 3| = -4$

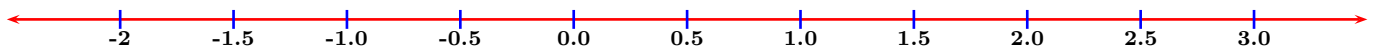
(a) _____

(b) (2 points) $|2x - 3| = 0$

(b) _____

7. (3 points) Consider $y = -3x + 2$, solve, graph, then give your final answer in interval notation:

$$-1 \leq y \leq 5$$



7. _____

8. (2 points) Solve $|2x - 1| + 5 < 0$.

8. _____

9. (2 points) Solve $|3x + 4| + 5 > 1$.

9. _____

10. (4 points) Solve $2|4x + 3| - 1 \leq 5$, and express your answer in interval notation.

10. _____

11. (4 points) Solve $-3|2x - 5| + 4 \leq -2$, and express your answer in set-builder notation.

11. _____

12. (4 points) Solve $-2|2x + 3| + 1 \leq -5$, and express your answer in interval notation.

12. _____

13. Algebra Review Problems:

(a) (2 points) Simplify: $\frac{x^2 - 9}{x^2 - 6x + 9}$

(a) _____

(b) (2 points) Simplify: $\frac{4}{x^2 - 5x - 14} \div \frac{2}{x^2 - 4}$

(b) _____

(c) (2 points) Simplify: $\frac{4}{x^2 - 25} - \frac{2}{x - 5}$

(c) _____

(d) (2 points) Solve for y , and write your final answer in slope-intercept form:
 $3x - y - 4 \leq -2x + 3y + 4$

(d) _____

(e) (2 points) Find the equation of a line that contains $(3, -1)$ with zero slope.

(e) _____

(f) (2 points) Find the equation of a line that contains $(4, 0)$ with no slope.

(f) _____