**For problems 1 – 3: Solve for y. Show detailed work.**

1. $8x+5y>10$ \_\_\_\_\_\_\_\_\_\_\_\_\_

2. $6(y-1)\leq 3x$ \_\_\_\_\_\_\_\_\_\_\_\_\_

3. $-10x+3y\geq -6x-18$ \_\_\_\_\_\_\_\_\_\_\_\_\_

**For problems 4 – 6: Use the graphing calculator to graph each inequality. Show detailed work. Provide a rough sketch of each graph.**

4. $2y+8<6x$ \_\_\_\_\_\_\_\_\_\_\_\_\_

5. $-x-4y\geq 12 $$ -x-4y\geq 12 $ $-x-4\geq 12$ \_\_\_\_\_\_\_\_\_\_\_\_\_

6. $7x+3y<9$ \_\_\_\_\_\_\_\_\_\_\_\_\_

**For questions 7 –10: Refer to the inequality shown in the graph below.**



Given the inequality shown in the graph:

7. Describe the location(s) on the graph where you can find solutions.

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8. Plot two points that are included in the solution set. Label the points A and B.

9. Describe the location(s) on the graph where you **cannot** find solutions.

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10. Plot two points that are **not** included in the solution set. Label the points C and D.

**For question 11: Refer to the inequality given below.**

 $5y-8x\leq 10$

11. Choose each of the following points that is a solution to the given inequality. Show work to justify your answer.

A) $(5, 1)$

B) $(-3, 2)$

C) $(0, 4)$

D) $(-1, -5)$