Quiz 2.1: Linear Inequalities in Two Variables

Multiple Choice: *Choose the letter that corresponds to the correct answer. Write the answer in your notebook.*

1. Which type of line is used if the points on the plane divider are included in the solution?

   A. Broken line B. Curved line C. Dotted line D. Solid line

2. What do we call an inequality which can be written in any one of the following forms?

   $$Ax + By < C \qquad Ax + By \leq C$$
   $$Ax + By > C \qquad Ax + By \geq C$$

   A. Linear Equation in Two Variables
   B. Linear Equality in Two Variables
   C. Linear Inequality in Two Variables
   D. Linear Inequation in Two Variables

3. Translate the following situation into a mathematical phrase: "The sum of two numbers is less than 7."

   A. $x + y \geq 7$ B. $x + y \leq 7$ C. $x + y > 7$ D. $x + y < 7$

4. Which of the following is the symbol for "at most"?

   A. $>$ B. $<$ C. $\geq$ D. $\leq$

5. Which of the following is not a linear inequality?

   A. $2x + 3y < 4$ B. $x - 2y > 3$ C. $3x + y = 1$ D. $x - 3y \leq 4$

6. When graphing the inequality $2x - y > 3$, what is the y-intercept of the plane divider?

   A. $b = 2$ B. $b = -2$ C. $b = 3$ D. $b = -3$

7. Which of the following ordered pairs is a solution to the inequality $x + y > -1$?

   A. (-1, -2) B. (0, 0) C. (-3, 2) D. (-2, -3)

8. Which of the following ordered pairs is NOT a solution to the inequality $2x - y \geq 3$?

   A. (-1, -2) B. (2, 0) C. (3, 2) D. (2, -3)

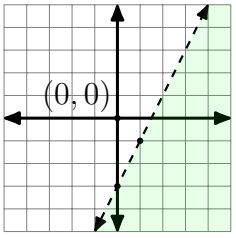
9. When graphing the inequality $2x - y > 3$, what is the slope of the plane divider?

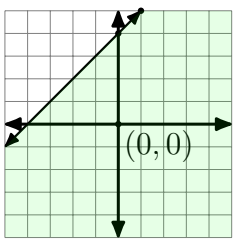
   A. $m = 2$ B. $m = -2$ C. $m = 3$ D. $m = -3$

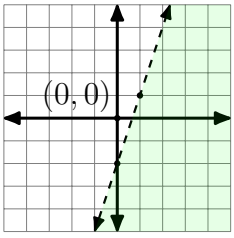
10. Write in symbols the phrase: "Twice a number is greater than or equal to another number."

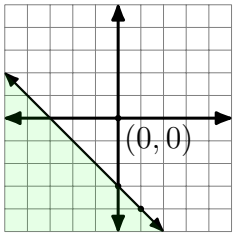
    A. $2x > y$ B. $2x < y$ C. $2x \geq y$ D. $2x \leq y$

11. Which of the following graphs shows the solution to the inequality $2x - y > 3$?

    A. 

    B. 

    C. 

    D. 

Answer Key

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   Solution:

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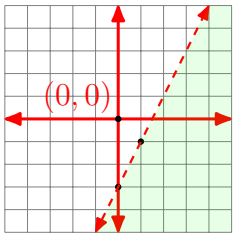
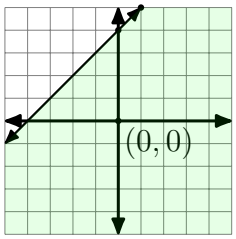
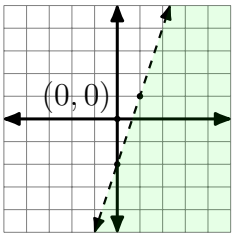
A. 

B. 

C. 

D.