Math 110 Quiz #2 Review: Sec 5.2 & 5.3 **Name: _____**

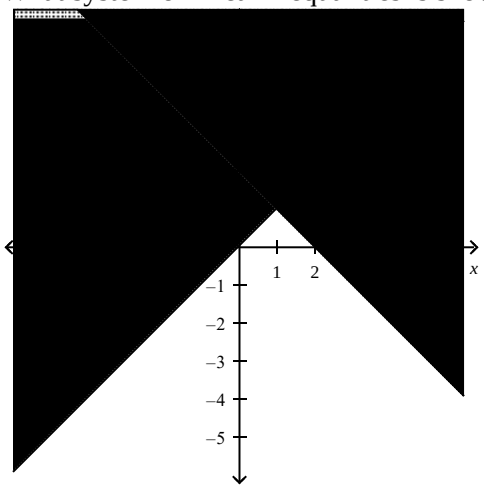
Multiple Choice: *Identify the choice that best completes the statement or answers the question.*

____ 1. What is the boundary line for the linear inequality $2x + 2y < 16$?
   a. $y = 8 - x$
   b. $x = 8 - y$
   c. $y = 16 - x$
   d. $y = 4 - 2x$

____ 2. Which test point is in the solution set for the linear inequality $\{(x, y) \mid 7x + 5y \leq 0, x \in I, y \in I\}$?
   a. (2, 2)
   b. (–1, –1)
   c. (1, 1)
   d. (2, –2)

____ 3. How would you graph the solution set for the linear inequality $4y - 2x < 20$?
   a. Draw a dashed boundary line $y = \frac{1}{2}x + 5$, then shade above the line.
   b. Draw a dashed boundary line $y = \frac{1}{2}x + 5$, then shade below the line.
   c. Draw a solid boundary line $y = \frac{1}{2}x + 5$, then shade below the line.
   d. Draw a solid boundary line $y = \frac{1}{2}x + 5$, then shade above the line.

____ 4. What system of linear inequalities is shown here?



   a. $x - y \geq -2$
      $y \geq x$
   b. $x - y \geq 2$
      $y \geq x$
   c. $x + y \geq 2$
      $y \geq x$
   d. $-x + y \geq -2$
      $y \geq x$

____ 5. Identify the point of intersection for the following system of linear inequalities.
$\{10y - 5x \leq 0, 4x + 2y > 10, x \in I, y \in I\}$
   a. (2, –1)
   b. (–2, –1)
   c. (2, 1)
   d. (–2, 1)

Quiz Review: Sec 5.2 & 5.3
Answer Section

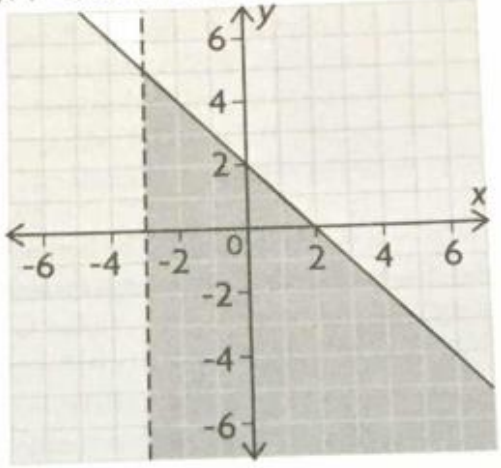
MULTIPLE CHOICE

1. ANS: A
2. ANS: B
3. ANS: B
4. ANS: C
5. ANS: C

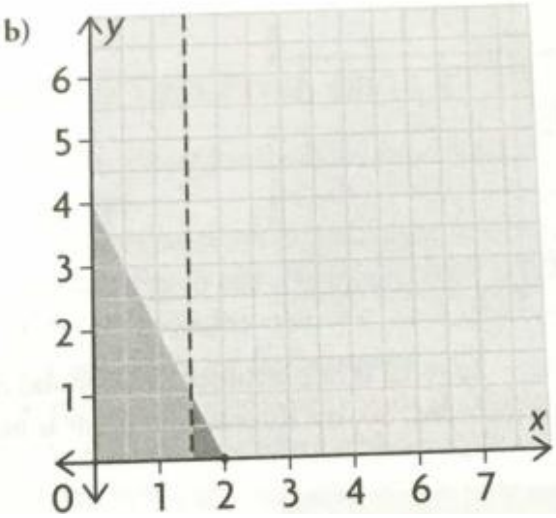
1. **a)** i) **b)** ii)

2. e.g., (−2, 4), (0, 2), (1, 4)

3. **a)**



b)



4. shaded and stippled

5.