Name: _____ Date: _____

BLM 9–4

Section 9.1 Extra Practice

1. Which ordered pairs are solutions to each given inequality?

a) $x - 3y < 18$

A (3, –5) **B** (0, 0) **C** (–5, 3) **D** (5, –5)

b) $0 < 2x - 5y$

A (5, 2) **B** (2, 5) **C** (–5, 2) **D** (2, –5)

c) $x - 6 \leq y$

A (1, 6) **B** (6, 1) **C** (–1, 6) **D** (–1, –6)

2. Consider each inequality.

i) Express y in terms of x. Identify the slope and the y-intercept.

ii) Indicate whether the boundary should be a solid line or a broken line.

iii) Use technology to graph the inequality.

a) $2x - 7y \geq 14$ **b)** $5 - x + 3y < 0$

c) $y + 4 > 0$ **d)** $5x + 2y \leq 4$

3. Consider each inequality.

i) Determine the x-intercept and the y-intercept of the boundary.

ii) Indicate whether the boundary should be a solid line or a broken line.

iii) Use technology to graph the inequality.

a) $y < 2x + 5$ **b)** $x - 5y \geq 25$

c) $3x + y + 6 > 0$ **d)** $x + 5 < 0$

4. Graph each inequality.

a) $y \leq -2x + 7$ **b)** $3x + y < -9$

c) $x \leq 2y + 8$ **d)** $4x - 5y \geq 20$

5. Ben is buying snacks for his friends. He has $10.00. The choices are apples for $0.80 and muffins for $1.25.

a) Write an inequality in two variables to model this situation. Define your variables.

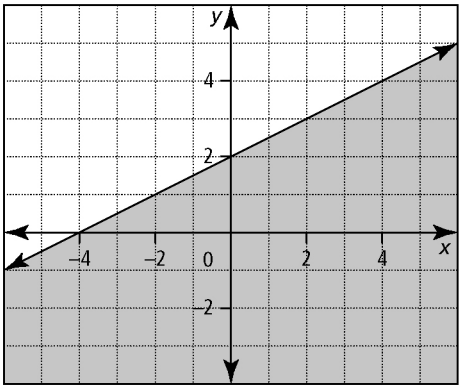
b) State the restrictions on the variables.

c) Graph the inequality.

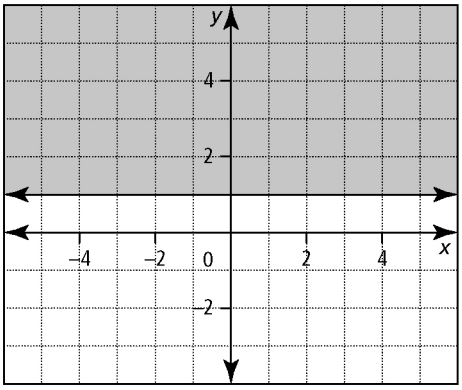
d) Why is (5, 4.8) not a solution?

6. Determine the inequality that corresponds to each graph.

a)



b)



c)