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1. Which is a solution to the linear inequality: $7x + 5y \leq 0$

- a. (2, 2) b. (-1, -1) c. (1, 1) d. (2, -2)

2. Identify the point of intersection for the following system of linear equations. $2y - 6x = 12$, $4x + 4y = 8$

- a. (-3, 1) b. (-1, 3) c. (3, -1) d. (1, -3)

3. Describe the boundary lines for the system of linear inequalities. $\{y \geq x + 2 \text{ and } y \geq -x \mid x \in \mathbb{R}, y \in \mathbb{R}\}$

- a. Dashed line along $y = x + 2$; dashed line along $y = -x$
 b. Dashed line along $y = x + 2$; solid line along $y = -x$
 c. Solid line along $y = x + 2$; dashed line along $y = -x$
 d. Solid line along $y = x + 2$; solid line along $y = -x$

4. Audrey notices the number of people and dogs in a dog park.

- There are more people than dogs. $p > d$ or $d < p$
- There are at least 12 dogs. $d \geq 12$
- There are no more than 40 people and dogs, in total. $p + d \leq 40$

Let d represent the number of dogs and let p represent the number of people.

Which inequality represents a restriction of d and p based on the given information?

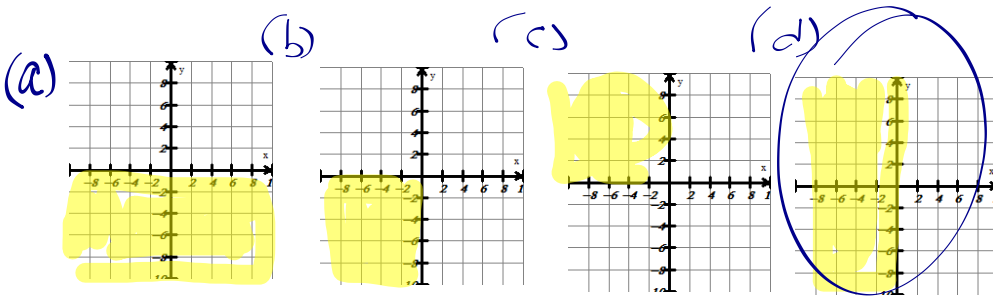
- a. $d - p \leq 40$ b. $d - p \geq 12$ c. $d < p$ d. $2d \geq p$

5. A class at the police academy has at least three times as many males as females: $x = \# \text{females}$

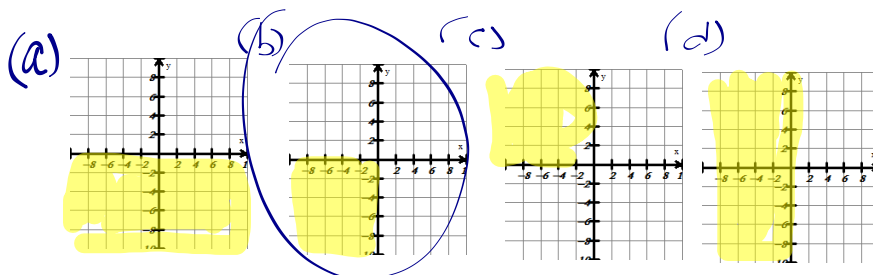
$y = \# \text{males}$

- a. $y \leq 3x$ b. $x \leq 3y$ c. $y \geq 3x$ d. $x \leq y + 3$

6. Which of the following shows $x \leq 0$



7. Which of the following shows $x \leq 0, y \leq 0$



Attachments

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