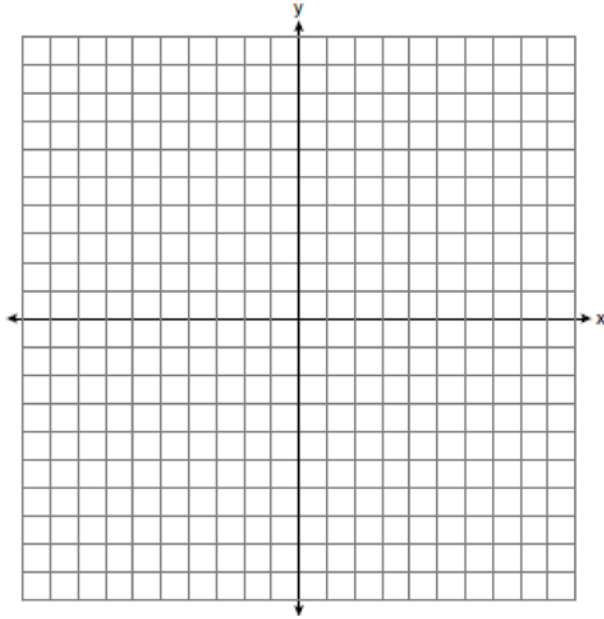


A.G.7: Systems of Linear Inequalities: Graph and solve systems of linear equations and inequalities with rational coefficients in two variables

1 Graph $y < x$ and $x > 5$ on the axes below.



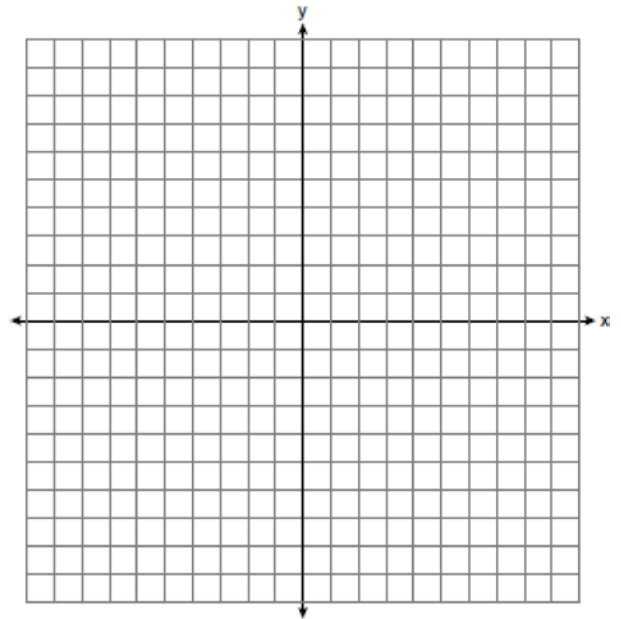
State the coordinates of a point in the solution set.

2 On the set of axes below, solve the following system of inequalities graphically.

$$y < 2x + 1$$

$$y \geq -\frac{1}{3}x + 4$$

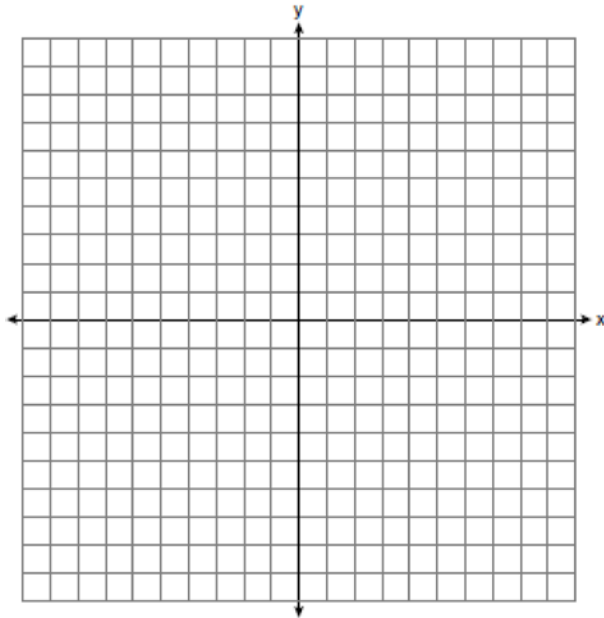
State the coordinates of a point in the solution set.



- 3 Graph the following systems of inequalities on the set of axes shown below and label the solution set S :

$$y > -x + 2$$

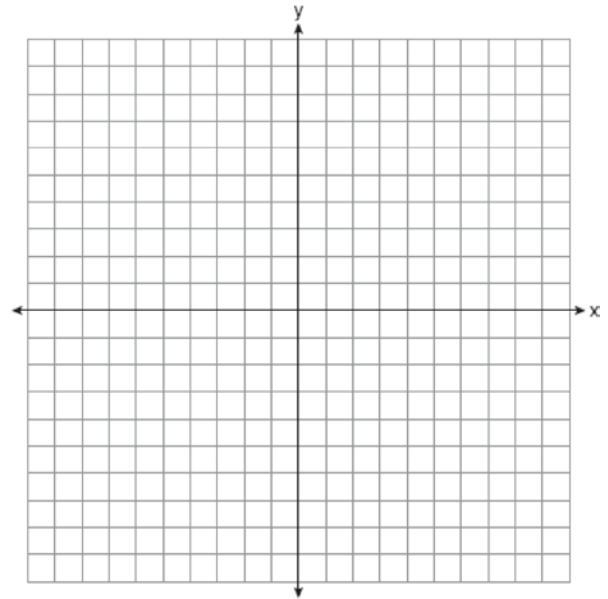
$$y \leq \frac{2}{3}x + 5$$



- 4 On the set of axes below, graph the following system of inequalities and state the coordinates of a point in the solution set.

$$2x - y \geq 6$$

$$x > 2$$

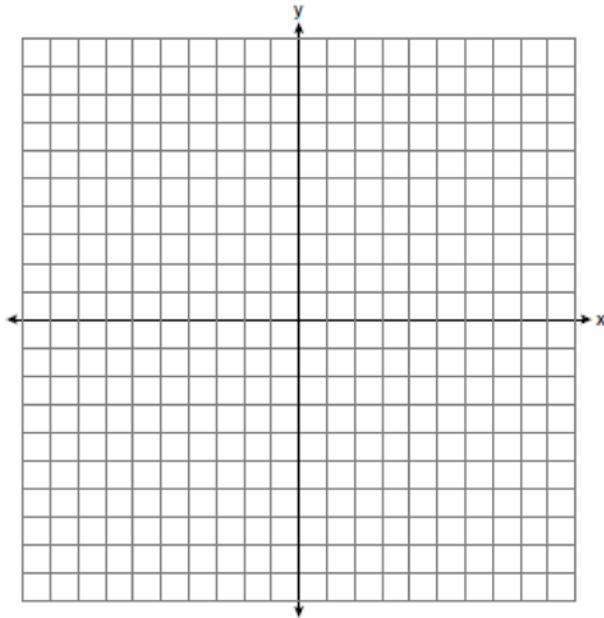


- 5 Solve the following system of inequalities graphically on the set of axes below.

$$3x + y < 7$$

$$y \geq \frac{2}{3}x - 4$$

State the coordinates of a point in the solution set.

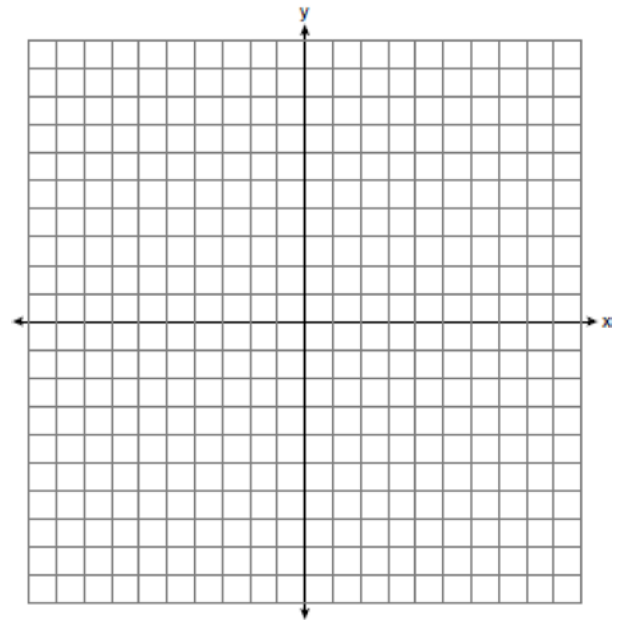


- 6 Graph the following systems of inequalities on the accompanying set of axes and label the solution set S :

$$y > x - 4$$

$$y + x \geq 2$$

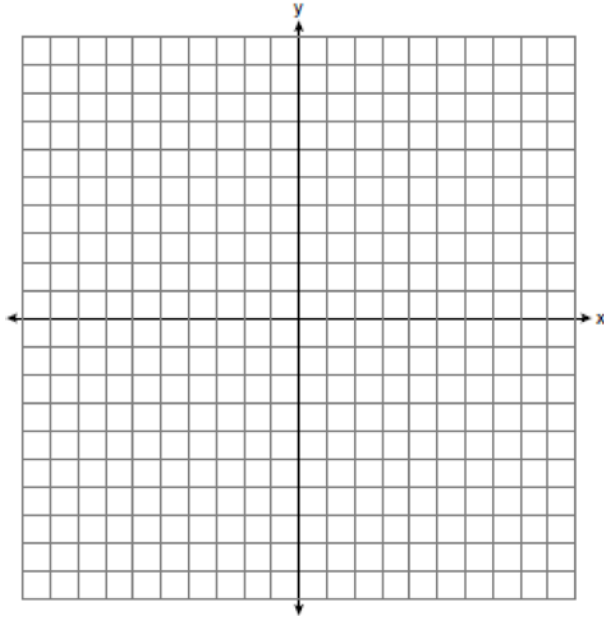
[Only a graphic solution can receive full credit.]



- 7 On the set of axes below, solve the following system of inequalities graphically. Label the solution set S .

$$2x + 3y < -3$$

$$y - 4x \geq 2$$

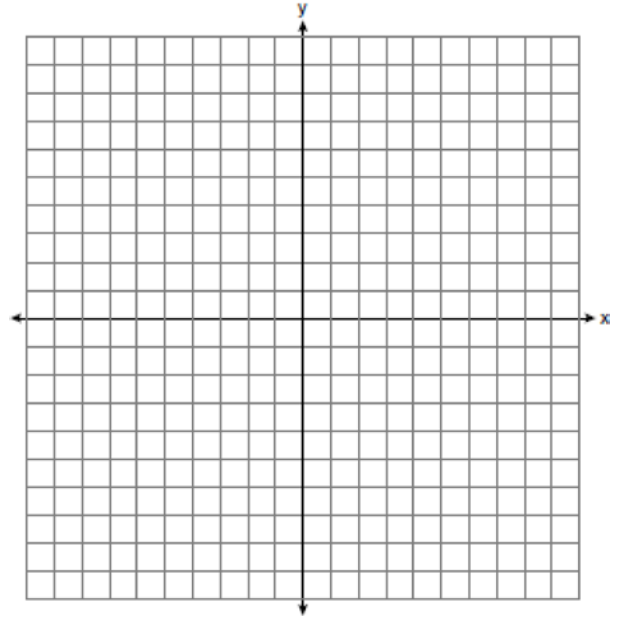


- 8 On the set of axes below, solve the following system of inequalities graphically.

$$y + 3 < 2x$$

$$-2y \leq 6x - 10$$

State the coordinates of a point in the solution set.

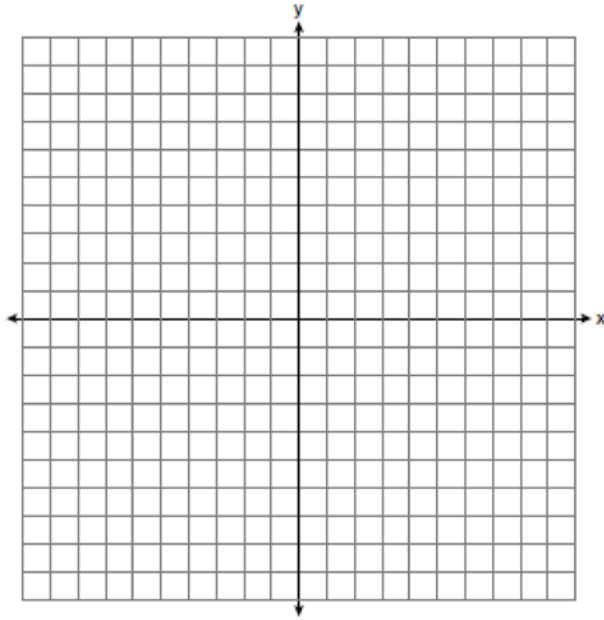


- 9 On the set of axes below, graph the following system of inequalities.

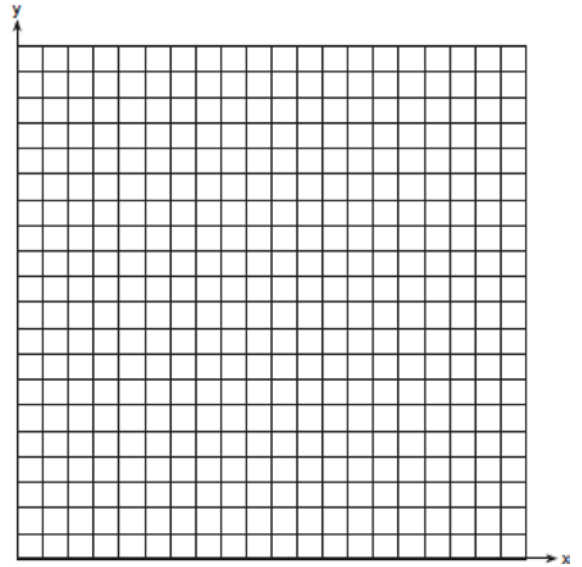
$$y + x \geq 3$$

$$5x - 2y > 10$$

State the coordinates of *one* point that satisfies $y + x \geq 3$, but does *not* satisfy $5x - 2y > 10$.

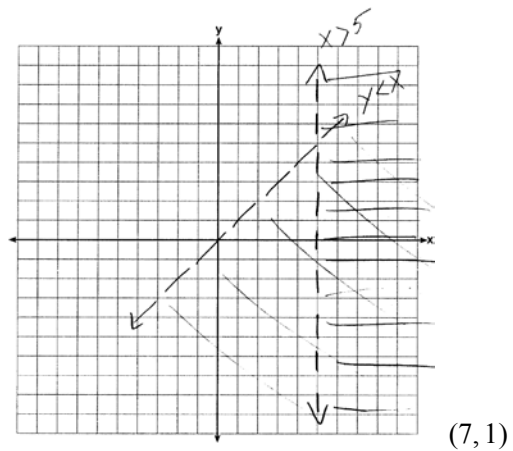


- 10 A company manufactures bicycles and skateboards. The company's daily production of bicycles cannot exceed 10, and its daily production of skateboards must be less than or equal to 12. The combined number of bicycles and skateboards cannot be more than 16. If x is the number of bicycles and y is the number of skateboards, graph on the accompanying set of axes the region that contains the number of bicycles and skateboards the company can manufacture daily.



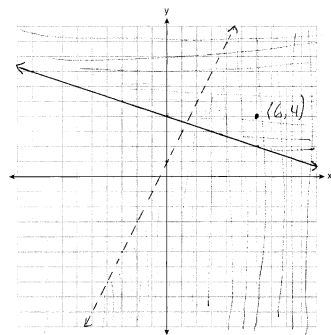
A.G.7: Systems of Linear Inequalities: Graph and solve systems of linear equations and inequalities with rational coefficients in two variables
Answer Section

1 ANS:



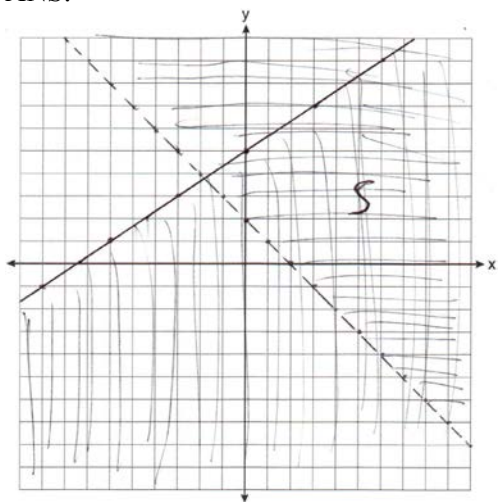
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2 ANS:



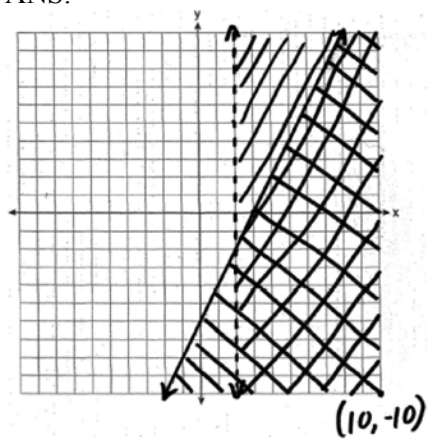
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3 ANS:



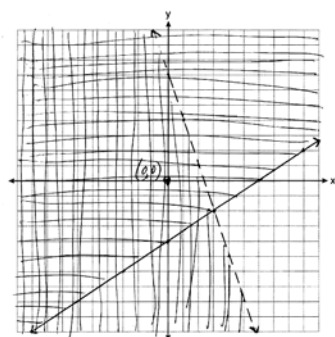
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4 ANS:



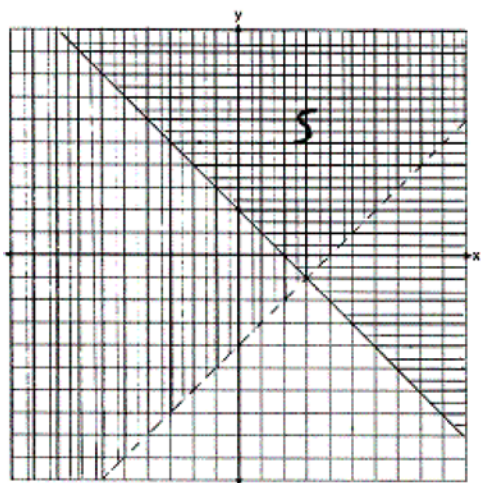
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5 ANS:



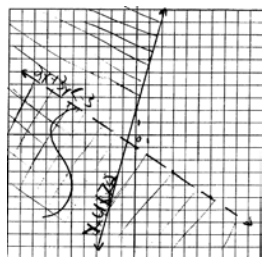
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6 ANS:



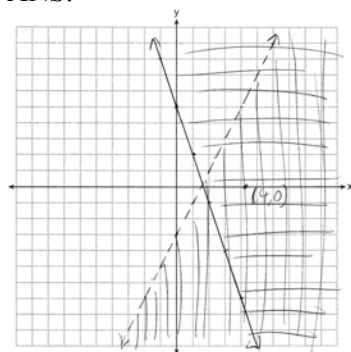
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7 ANS:



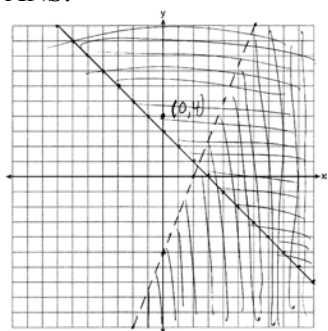
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8 ANS:



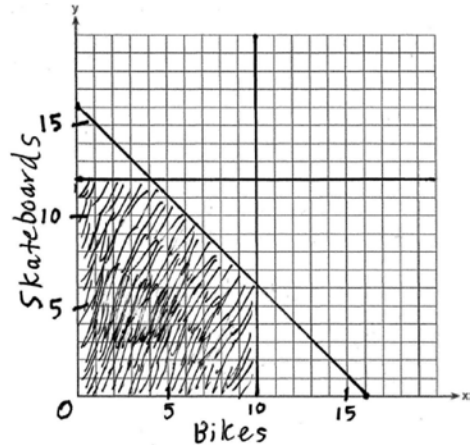
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9 ANS:



REF: 081239ia

10 ANS:



REF: 010234a