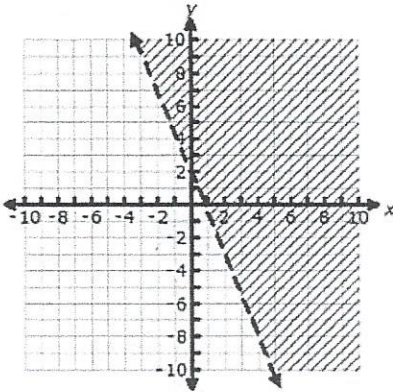


Algebra 1 Unit 3, Graphing Linear Inequalities, **Must Show Work for Credit**

Name Gonzalez Date 10-18 Pd _____

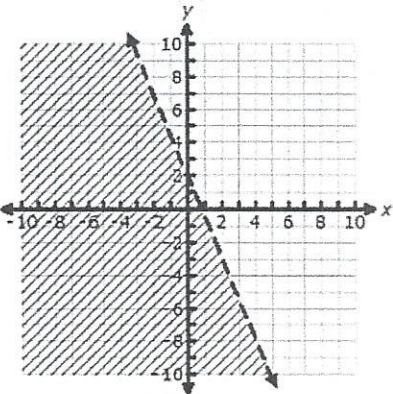
1 Which graph represents the solution set $y > -\frac{5}{2}x + 2$?

A

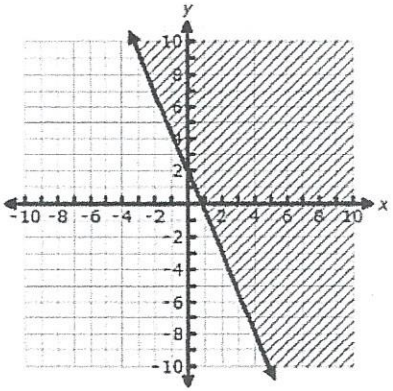


↑ slope
↑ y-int (0, 2)
> shade Above Dash Line

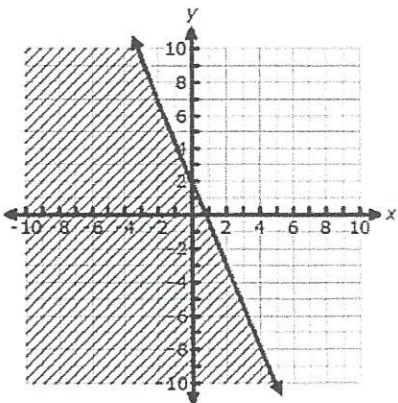
B



~~C~~



~~D~~

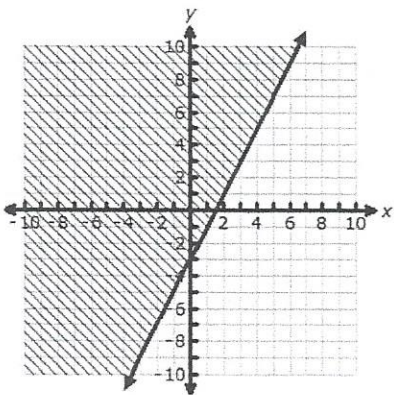


2 A linear inequality in two variables is shown below.

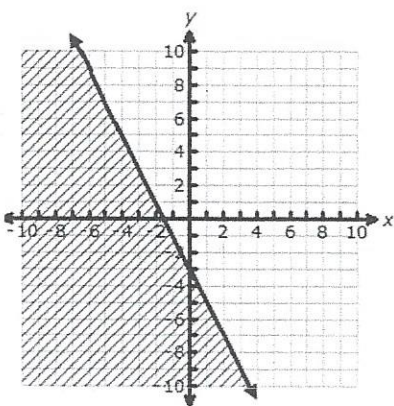
$$2x - y \geq 3$$

Which graph would represent the solution set of the linear inequality?

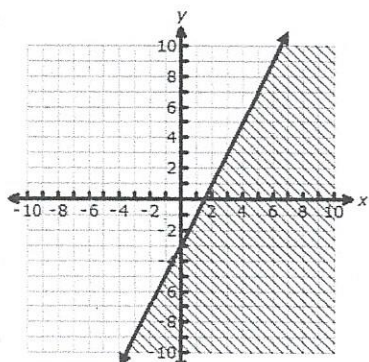
F



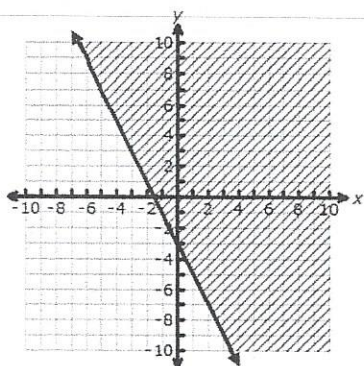
G



H



J



$$\begin{array}{r}
 2x - y \geq 3 \\
 -2x \quad \quad -2x \\
 \hline
 -y \geq -2x + 3 \\
 \frac{-y}{-1} \geq \frac{-2x}{-1} + \frac{3}{-1} \\
 y \leq 2x - 3
 \end{array}$$

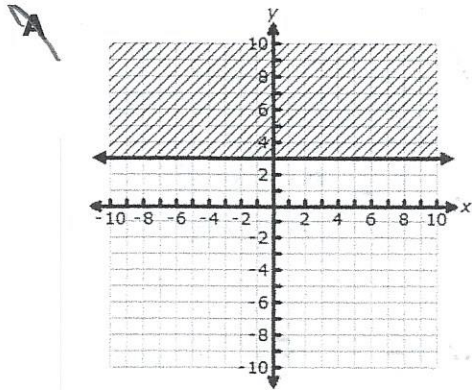
↑ ↑
 slope y-int
 (0, -3)

≤ Shade Below Solid Line

3 A linear inequality in two variables is shown below.

$$-4y < -12$$

Which graph would represent the solution set of the linear inequality?



$$\frac{-4y}{-4} < \frac{-12}{-4}$$

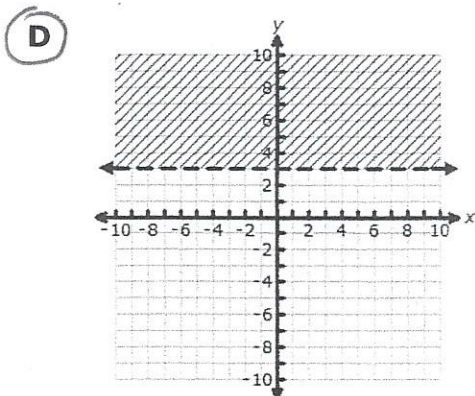
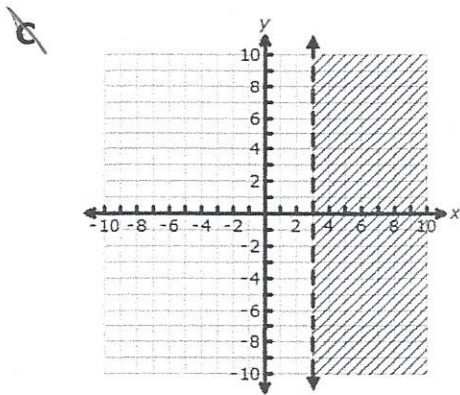
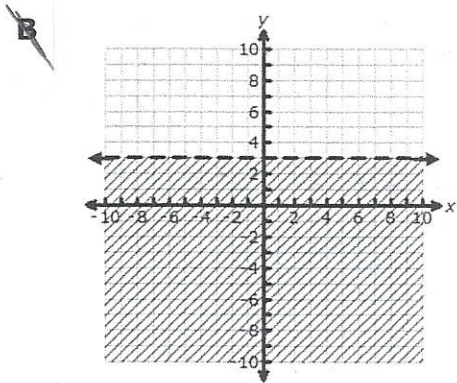
$$y > 3$$

$$y = mt + b$$

$(0, 3)$

slope = ϕ
Horizontal

→ Shade Above
Dash Line

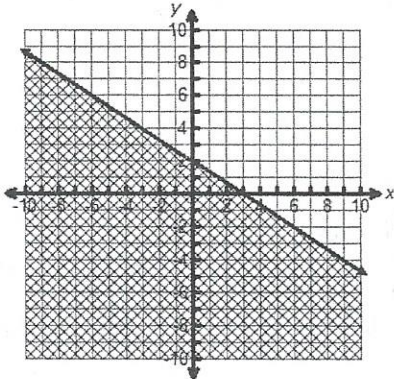


4 An inequality in two variables is shown below.

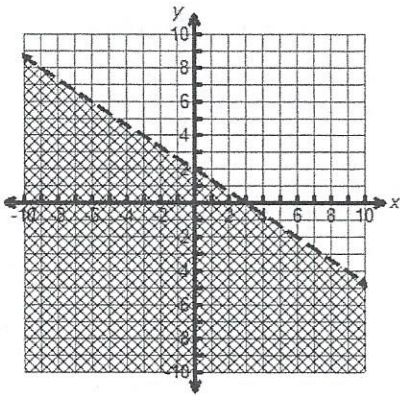
$$2x + 3y < 6$$

Which graph represents the solution set of the linear inequality?

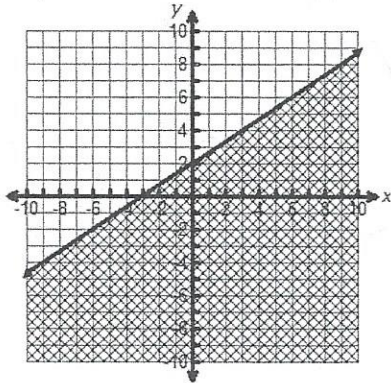
F



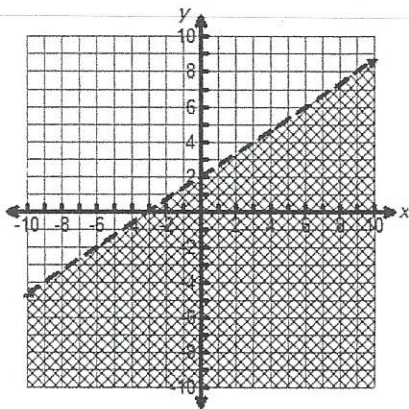
G



H



J



$$\begin{array}{r} 2x + 3y < 6 \\ -2x \quad \quad -2x \\ \hline \end{array}$$

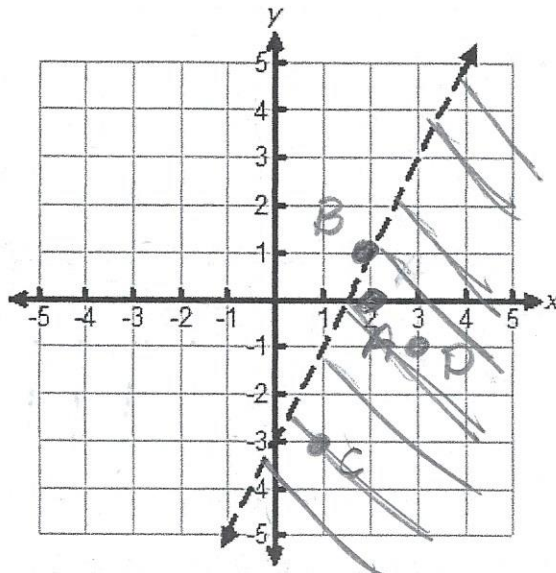
$$\frac{3y}{3} < \frac{-2x + 6}{3}$$

$$y < -\frac{2}{3}x + 2$$

↑ slope
↑ y-int (0, 2)

← shade Below
Dash Line

5 The graph of $2x - y = 3$ is shown on the coordinate grid.

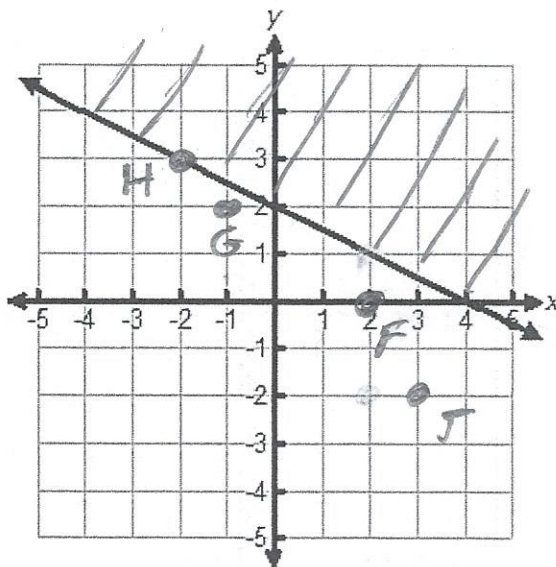


$$\begin{array}{r}
 2x - y > 3 \\
 -2x \quad -2x \\
 \hline
 -y > -2x + 3 \\
 \frac{-y}{-1} > \frac{-2x}{-1} + \frac{3}{-1} \\
 y < 2x - 3 \\
 \uparrow \\
 \text{Shade Below}
 \end{array}$$

Which ordered pair is NOT in the solution set of $2x - y > 3$?

- A (2, 0)
- B (2, 1)** ← On The Line ↑
Shade Region
- C (1, -3) Dash Line
- D (3, -1)

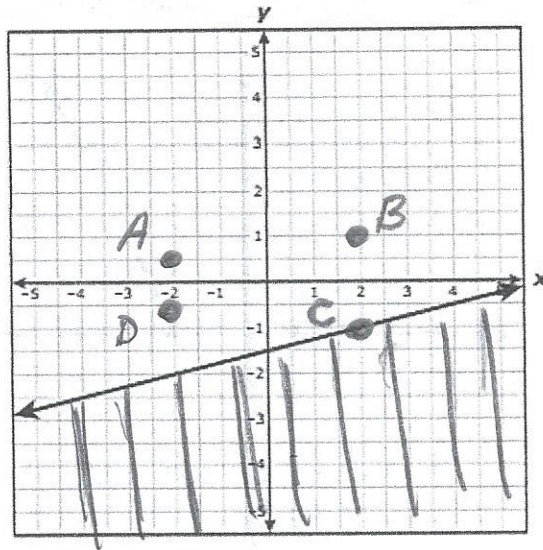
6 The graph of $-1.5x - 3y = -6$ is shown on the coordinate grid.



Which ordered pair is in the solution set of $-1.5x - 3y ≤ -6$?

- F (2, 0)
 - G (-1, 2)
 - H (-2, 3)**
 - J (3, -2)
- $$\begin{array}{r}
 +1.5x \quad +1.5x \\
 \hline
 -3y ≤ 1.5x - 6 \\
 \frac{-3y}{-3} ≤ \frac{1.5x}{-3} - \frac{6}{-3} \\
 y ≥ -\frac{1.5}{3}x + 2 \\
 \uparrow \\
 \text{Shade Above}
 \end{array}$$

7 The graph of $0.5x - 2y = 3$ is shown on the grid.

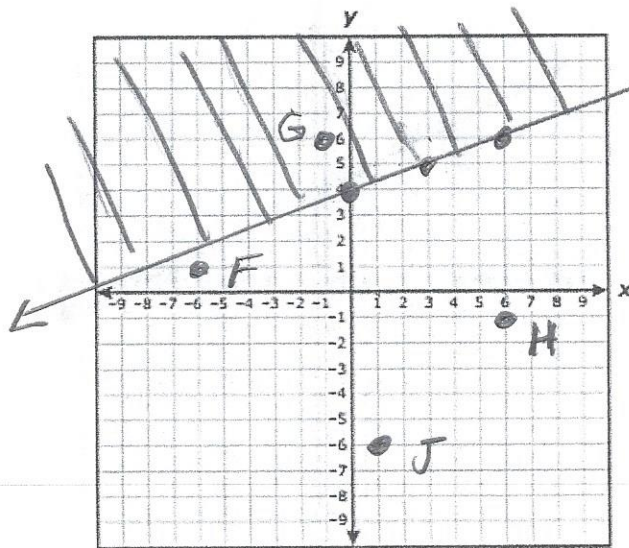


Which ordered pair is in the solution set of $0.5x - 2y \geq 3$?

- A (-2, 0.5)
- B (2, 1)
- C (2, -1)**
- D (-2, -0.5)

$$\begin{aligned}
 & -1.5x \quad - .5x \\
 & \hline
 & -2y \geq \frac{.5x}{-2} + \frac{3}{-2} \\
 & y \leq -\frac{.5}{2}x - \frac{3}{2} \\
 & \quad \uparrow \text{shade Below}
 \end{aligned}$$

8 Which ordered pair is in the solution set of $y \geq \frac{1}{3}x + 4$?

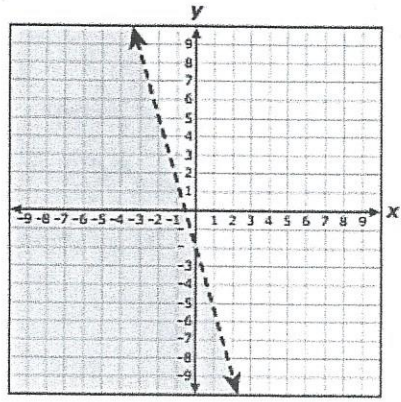


$$\begin{aligned}
 & y \geq \frac{1}{3}x + 4 \\
 & \quad \uparrow \quad \uparrow \\
 & \text{slope} \quad y\text{-int} \\
 & \quad \quad (0, 4) \\
 & \geq \text{shade Above} \\
 & \geq \text{Solid Line}
 \end{aligned}$$

- F (-6, 1)
- G (-1, 6)**
- H (6, -1)
- J (1, -6)

9 Which graph represents the solution set of $y \geq -\frac{7}{2}x - 2$?

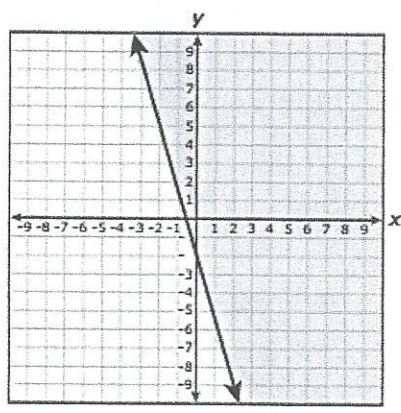
F



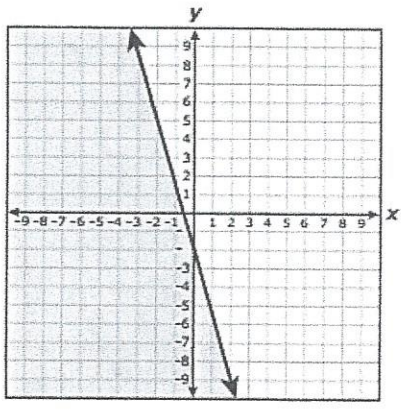
slope \nearrow
 y -int $(0, -2)$

\geq shade Above
 Solid Line

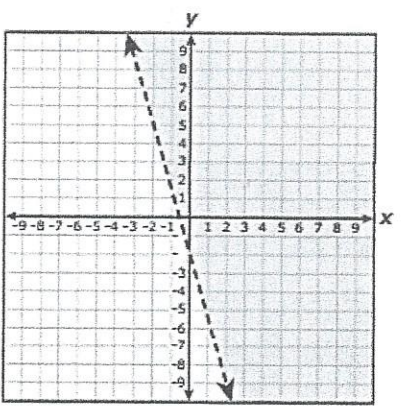
G



H

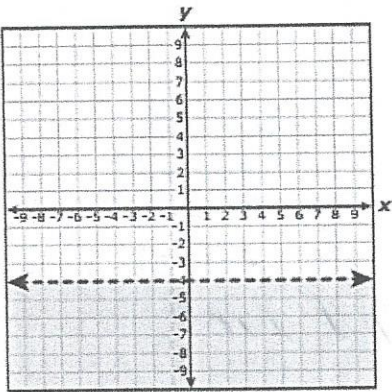


I



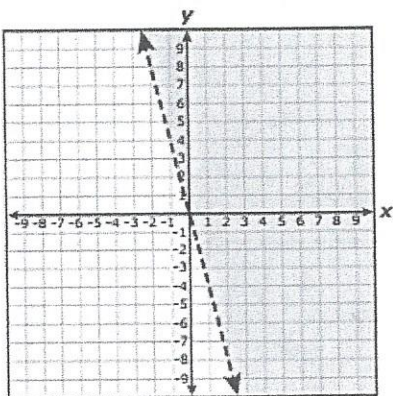
10 Which graph best represents the solution set of $y \leq -4x$?

A

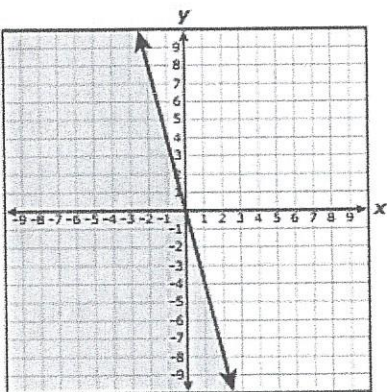


↑
Slope
≤ Shade Below
Solid Line

B



C



D

