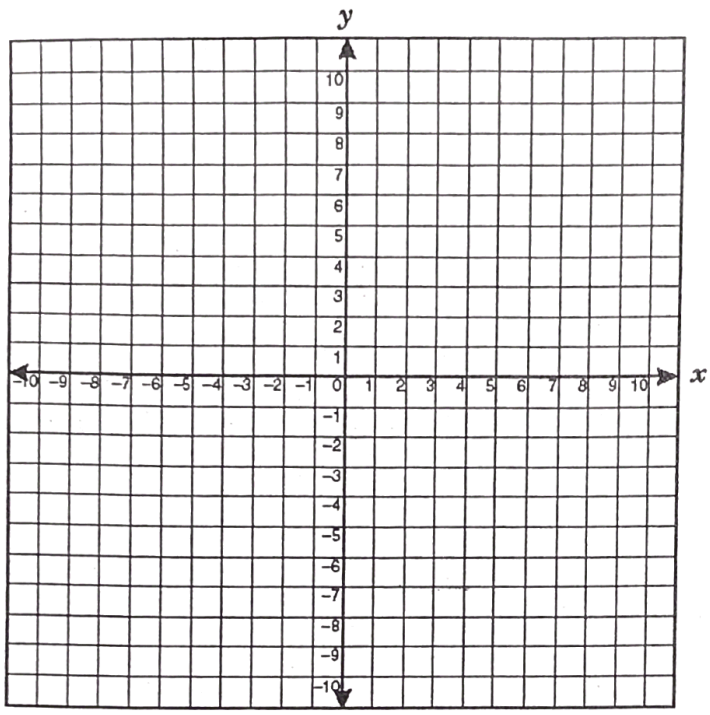
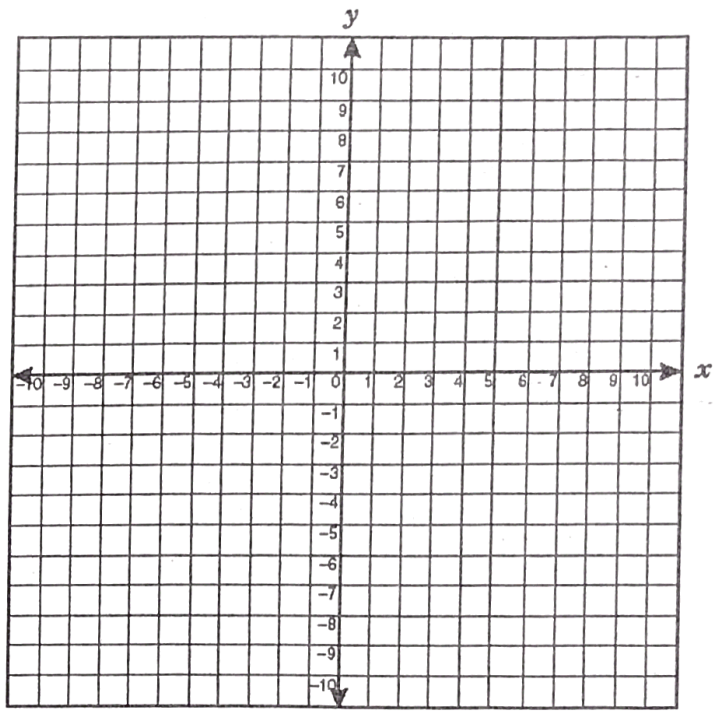
AII Name Date





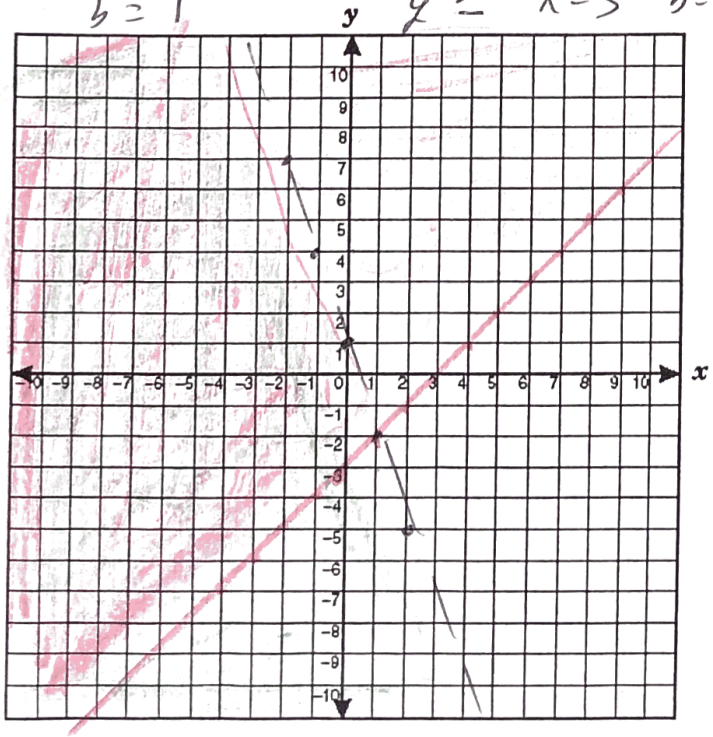
1) $3x + y < 1$ $\quad$ $x - y \leq 3$

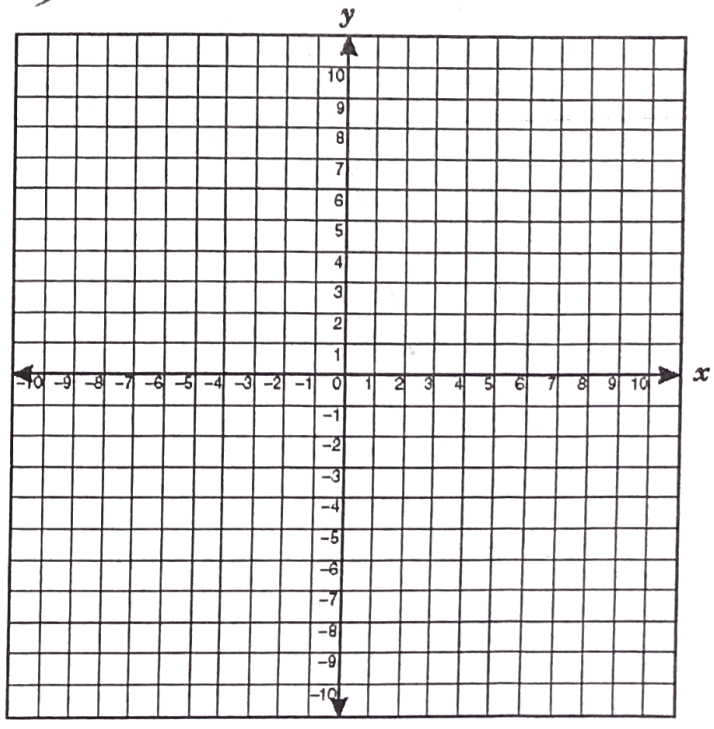
$-3x \quad -3x$ $\quad$ $-x \quad -x$

$y < -3x + 1$ $\quad$ $\frac{-y}{-1} \leq \frac{-x+3}{-1}$

$m = -3$ $\quad$ $y \geq x - 3$ $\quad$ $m = 1$

$b = 1$ $\quad$ $b = -3$





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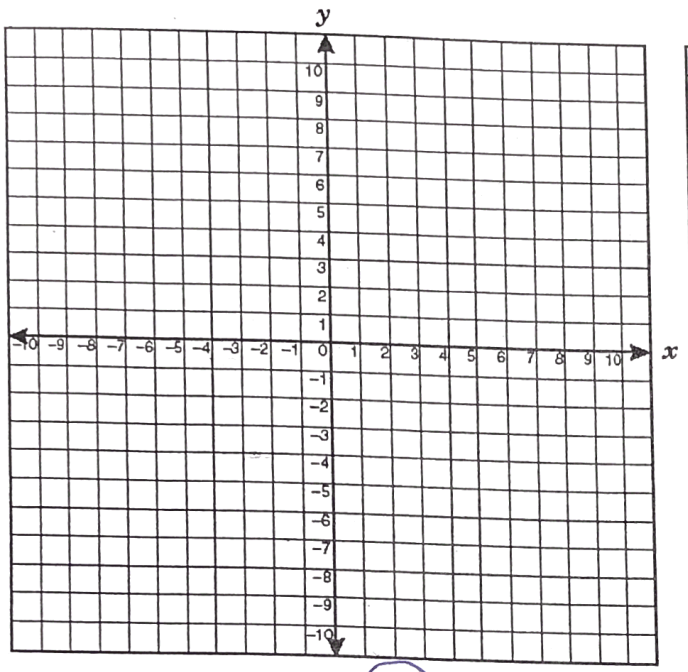
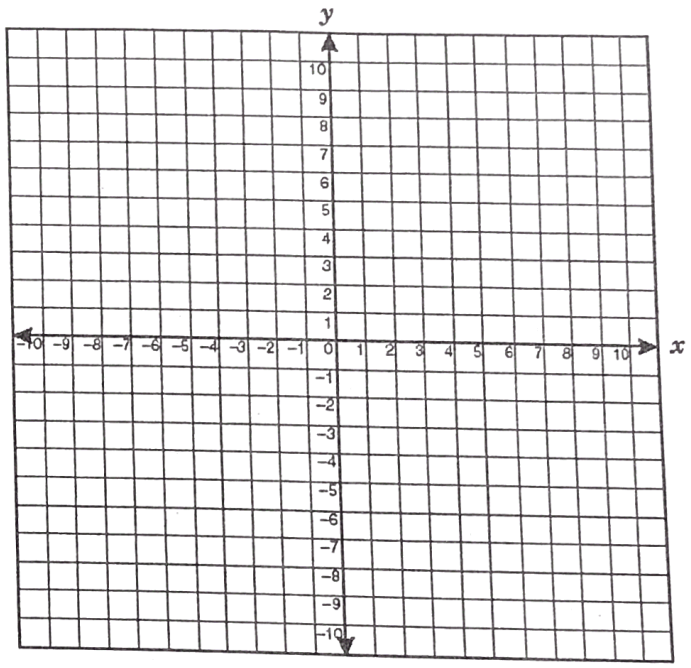




2) $y < 2$

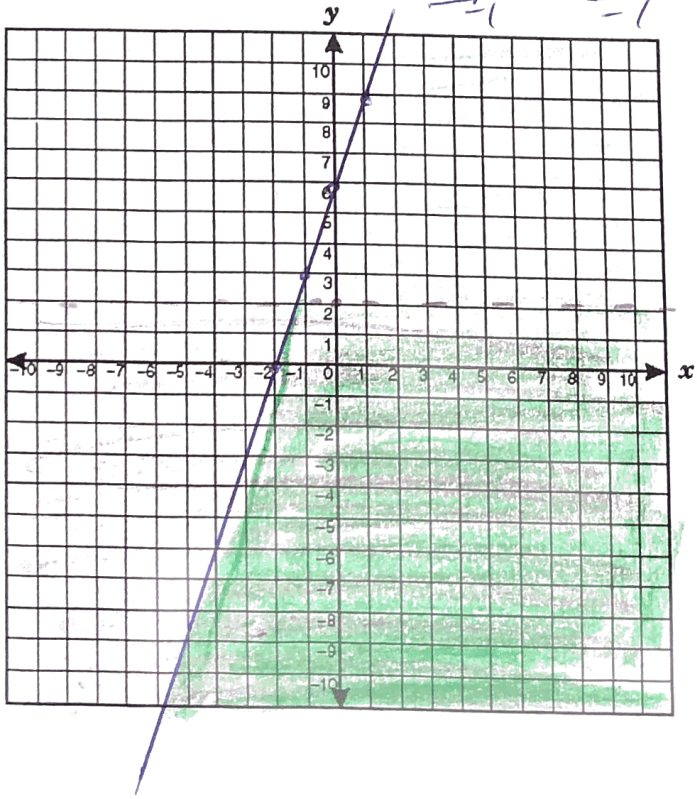
$3x - y \geq 6$

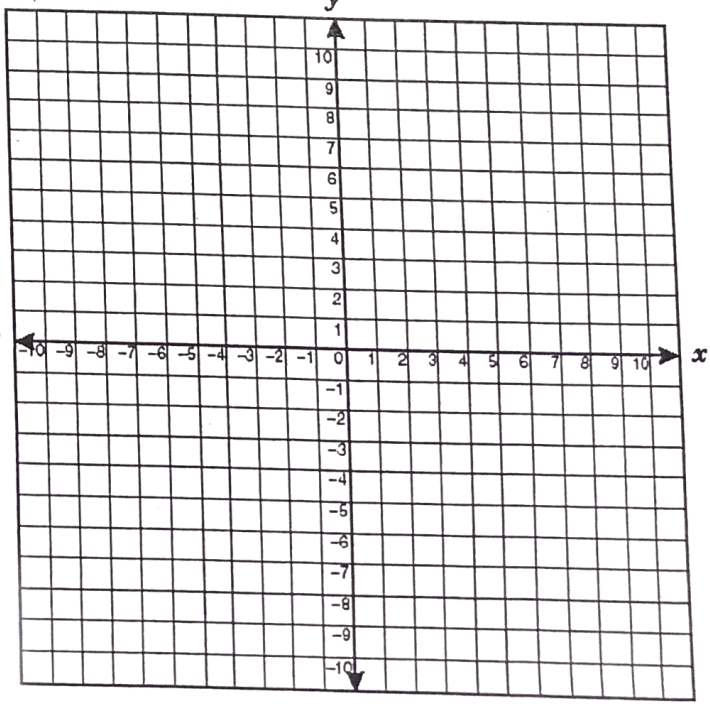
$-3x \quad -3x$

$\frac{-y}{-1} \geq \frac{-3x}{-1} - \frac{6}{-1}$

$y \leq 3x + 6$

$m = 3 \quad b = 6$





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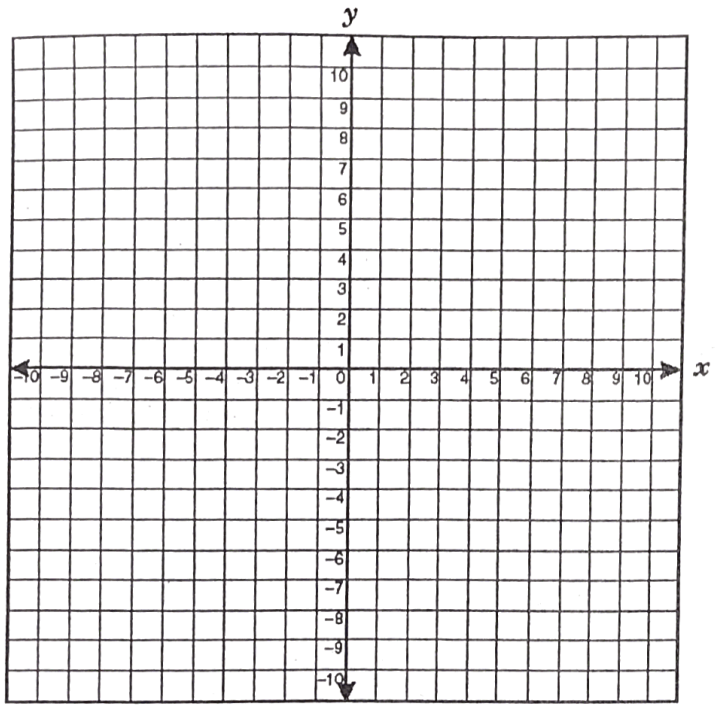
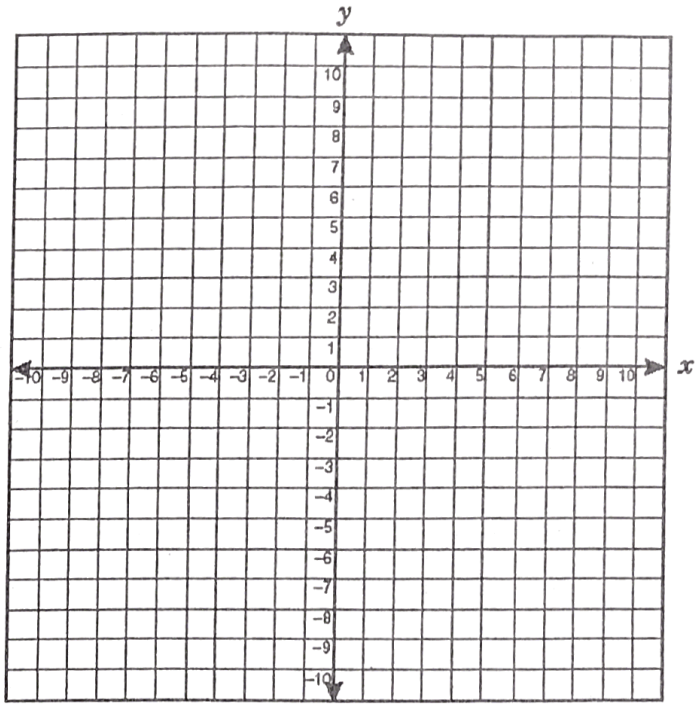
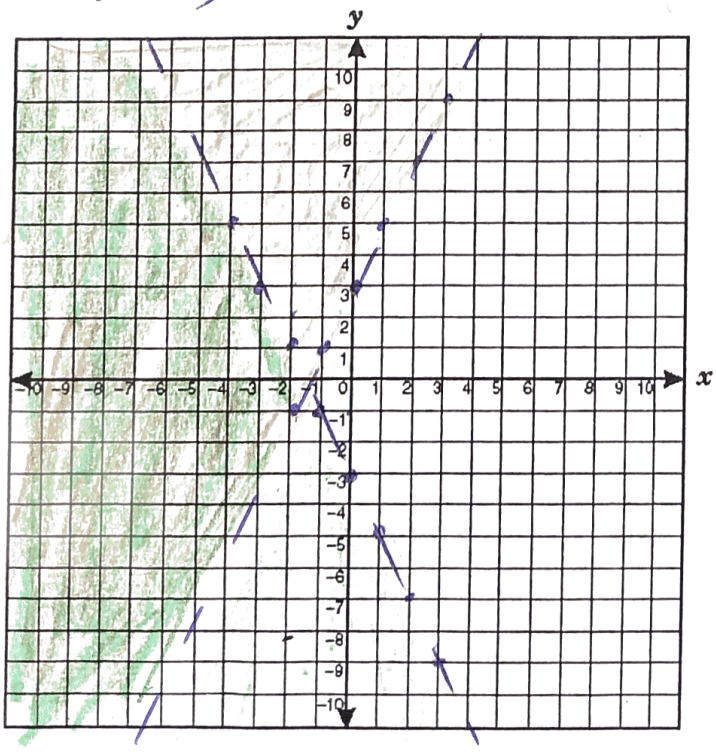


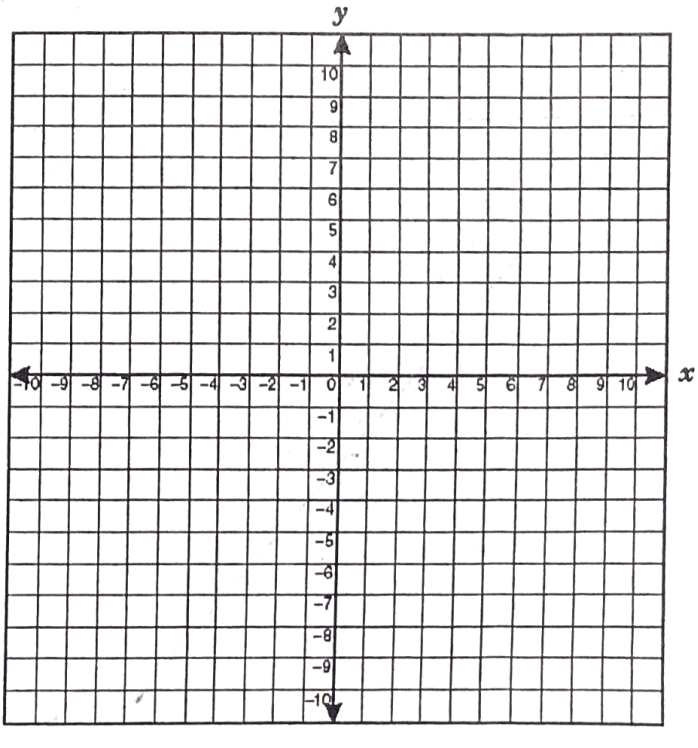


3) $y > 2x + 3$ $y < -2x - 3$

$m = 2$ $m = -2$

$b = 3$ $b = -3$





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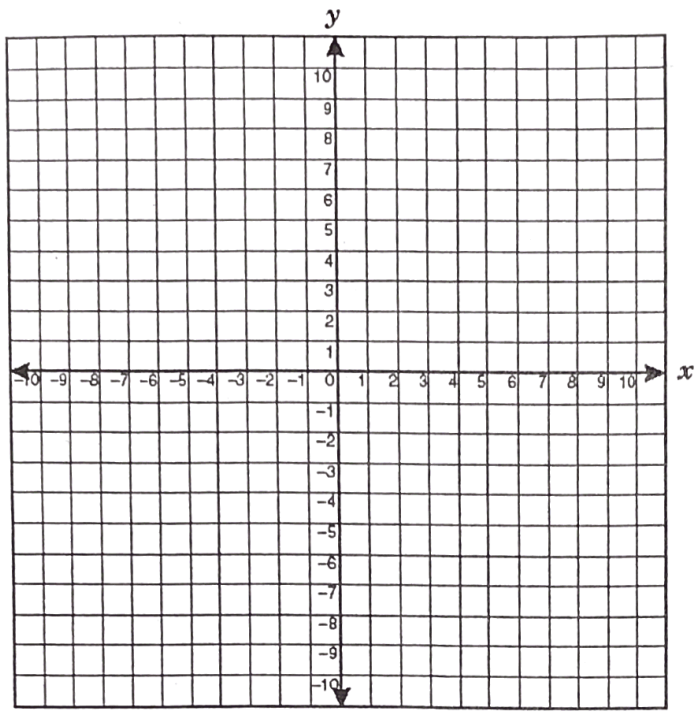
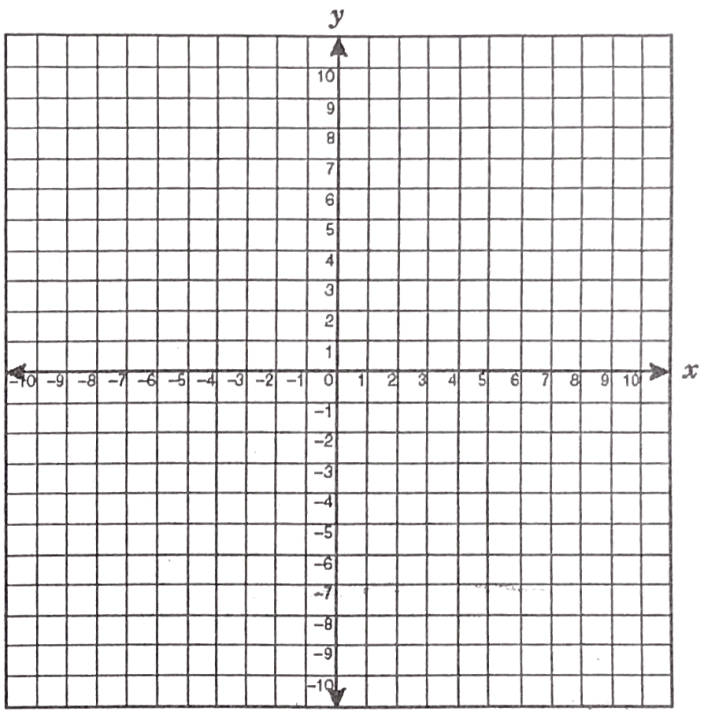




4) $y \geq -x - 3$

$m = -1$

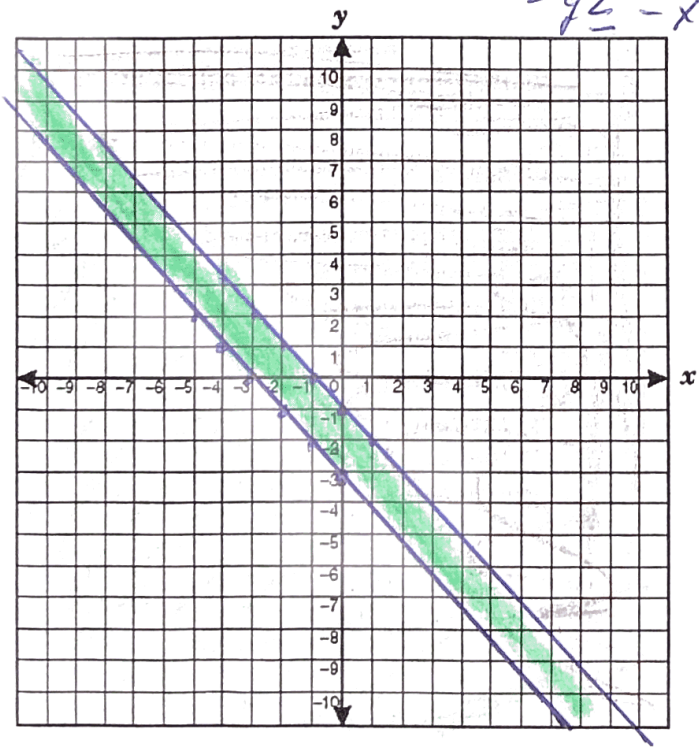
$b = -3$

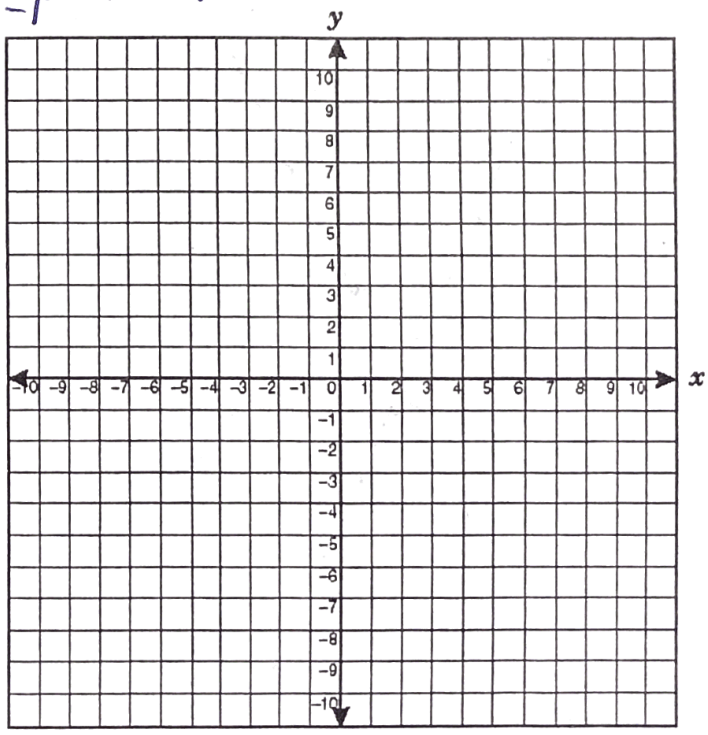
$2x + 2y \leq -2$

$-2x \quad -2x$

$\frac{2y}{2} \leq \frac{-2x - 2}{2}$ $b = -1$

$2y \leq -x - 2$ $m = -1$





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5) Determine whether the ordered pair is a solution of the linear inequality

$7x + 2y > -5$ $(-1, 1)$ (x, y)

$7(-1) + 2(1) > -5$

$-7 + 2 > -5$

$-5 > -5$ No solution

6) $(2, -1)$ (x, y)

$3 - 3y \leq 3y$

$3 - 3(-1) \leq 3(-1)$

$3 + 3 \leq -3$

$6 \leq -3$

No

$3y > 2x + 1$

$3(-1) > 2(2) + 1$

$-3 > 4 + 1$

$-3 > 5$

No

7) $(-3, -3)$ (x, y)

$5x + 4y > -4$

$5(-3) + 4(-3) > -4$

$-15 - 12 > -4$

$-27 > -4$

No solution

$2x + 3y > 2$

$2(-3) + 3(-3) > 2$

$-6 - 9 > 2$

$-15 > 2$

No solution.

8.) $(0,1)$ (x, y)

$1 - x \geq 3y$

$1 - (0) \geq 3(1)$

$1 \geq 3$

No

$3y - 1 > 2x$

$3(1) - 1 > 2(0)$

$3 - 1 > 0$

$2 > 0$

yes.

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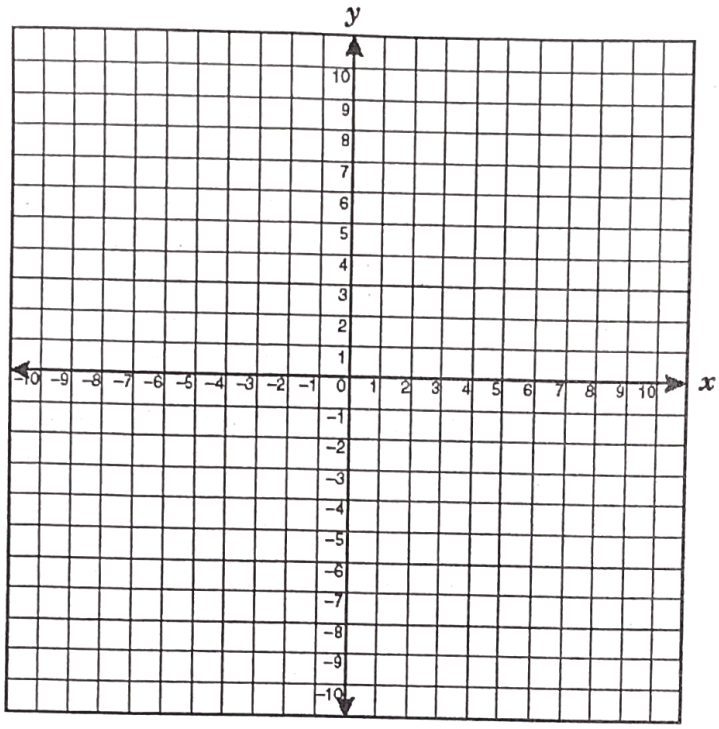

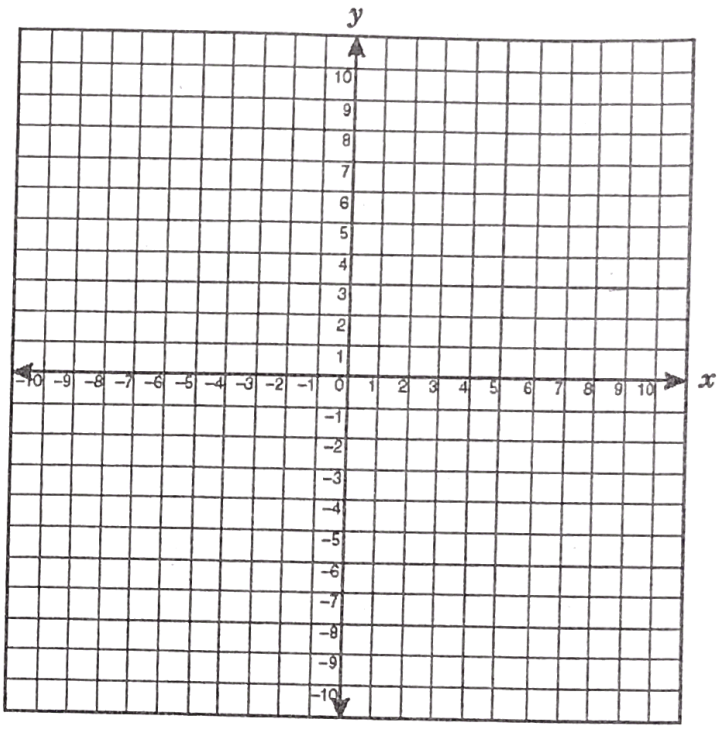

9) $x \geq 3$ $y < -2x - 3$

$m = -2$

$b = -3$