Graphing Systems and Linear Inequalities

May 16

ex. 1

$x + y = -2$

$2x - 3y = -9$

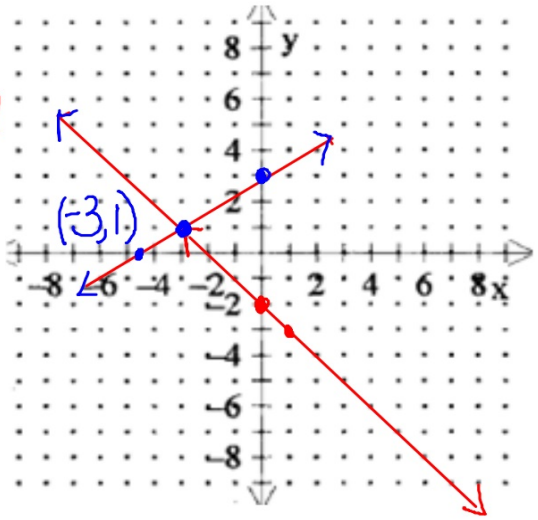
$y = -x - 2$ $m = -\frac{1}{1}$ $b = -2$

$-6 \quad -3$

$(-4.5, 0)$ $2x = -9$

$(0, 3)$ $-3y = -9$

$(-3, 1)$



ex. 2 $3x - 4y < 12$

Boundary line $3x - 4y = 12$

$(4, 0)\ (0, -3)$

CK $(0,0)$ $3 \cdot 0 - 4 \cdot 0 < 12$

$0 < 12$

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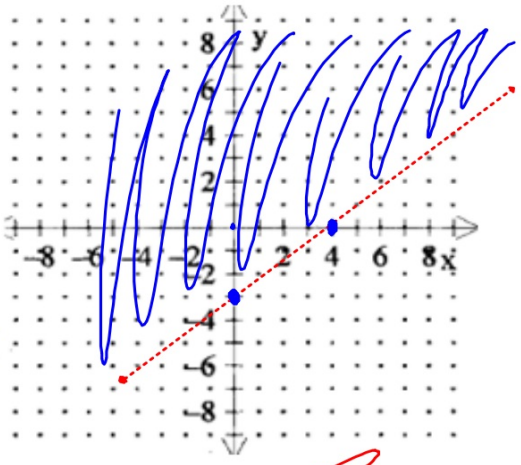
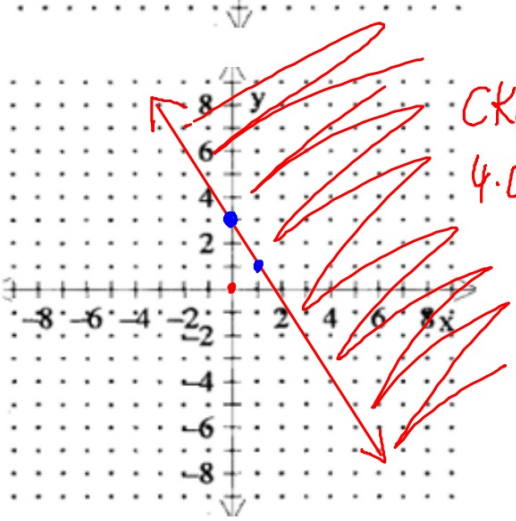


ex. 3 $4x + 2y \geq 6$

Boundary line $4x + 2y = 6$

$2y = -4x + 6$

$y = \frac{-2x}{1} + 3$



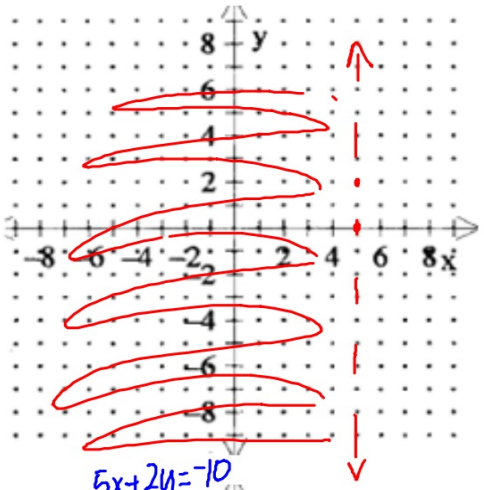
CK $(0,0)$

$4 \cdot 0 + 2 \cdot 0 \geq 6$

$0 \geq 6$ F

ex. 4 $x < 5$

$x = 5$ (5,0) (5,2)



ex. 5 $y \geq -6$ $y = -6$

$5x + 2y < -10$ $0 + 0 < -10$ F

$5x + 2y = -10$

$y = -\frac{5}{2}x - 5$