Page 19

Domain: x-values from left to right

Range: y-values from bottom to top (lowest to highest)

Increase: up from left to right (slope pos)

Decrease: down from left to right (slope neg)

Graph the linear equations: (Hint: identify the slope and *y*-intercept)

1. Graph: $y = \frac{1}{3}x - 2$.

$\frac{1}{3}$ = slope

y-intercept

Domain:

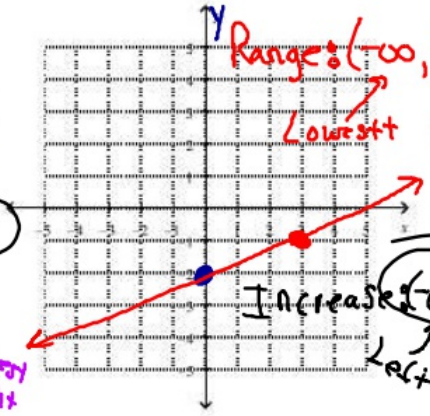
Left: $-\infty$

Right: ∞

$(-\infty, \infty)$

Furthest left

Furthest Right



Range: $(-\infty, \infty)$

Lowest

highest

Increase: $(-\infty, \infty)$

Left

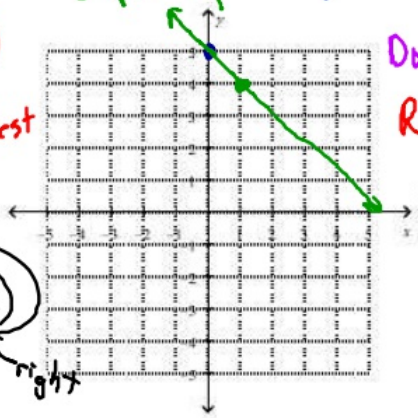
right

2. Graph: $y = -x + 5$.

$y = -1x + 5$

y-int

slope $= \frac{-1}{1}$



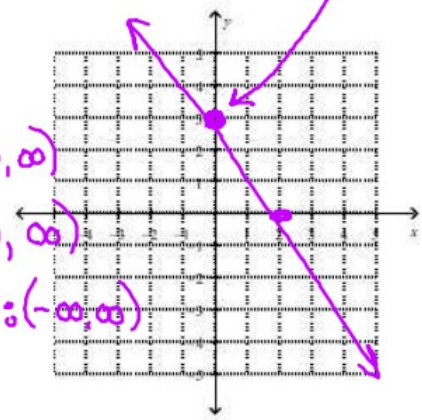
Domain: $(-\infty, \infty)$

Range: $(-\infty, \infty)$

Decrease $(-\infty, \infty)$

3. Graph: $y = -\frac{3}{2}x + 3$

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

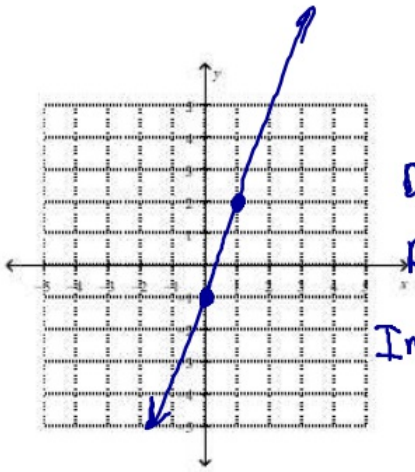


D: $(-\infty, \infty)$

R: $(-\infty, \infty)$

Decrease: $(-\infty, \infty)$

4. $y = \frac{3x}{1} - 1$



D: $(-\infty, \infty)$

R: $(-\infty, \infty)$

Inc: $(-\infty, \infty)$

Solve for y

Rewrite the equation so that y is a function of x Give the slope, y-intercept, and graph the equation	A) $-4x + y = 9$ $+4x \quad +4x$ $y = 9 + 4x$	B) $-19x + 9y = 8x - 9$ $+19x \quad +19x$ $\frac{9y}{9} = \frac{27x}{9} - \frac{9}{9}$ $y = 3x - 1$
	C) $-3x + 7y - 7 = -1 - 8y$ $+8y \quad +8y$ $-3x + 15y - 7 = -1$ $+7 \quad +7$ $-3x + 15y = 6$ $+3x \quad +3x$ $\frac{15y}{15} = \frac{6}{15} + \frac{3x}{15}$ $y = \frac{6}{15} + \frac{1}{5}x$	D) $8x + 2(y + 13) = 10$