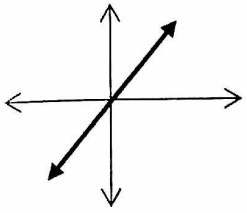
AA PREP: LINEAR RELATIONSHIPS—GRAPHING LINES LECTURE

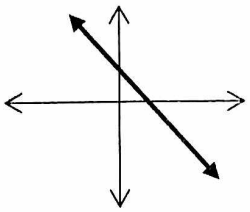
Slope: $\frac{rise}{run} = \frac{vertical\ change}{horizontal\ change} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$

Visual Representations of Slope:

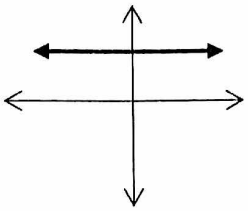
Positive



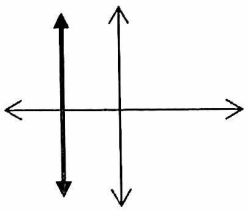
Negative



Zero

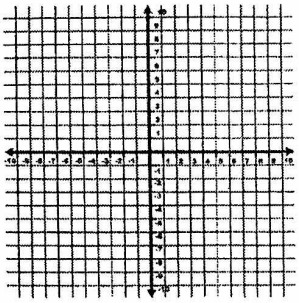


Undefined



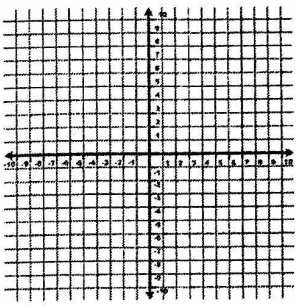
Horizontal Lines: $y = \#$

EX 1: $y = -5$



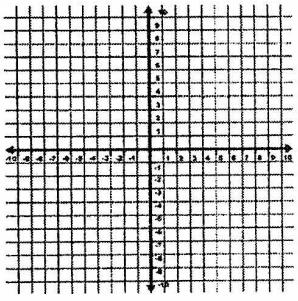
Vertical Lines: $x = \#$

EX 2: $x = 4$



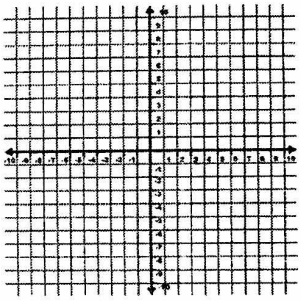
Point-Slope Form: $y - y_1 = m(x - x_1)$

EX 3: $y - 3 = \frac{1}{4}(x + 5)$



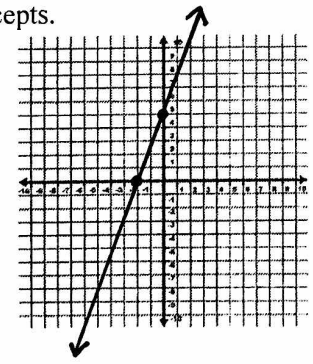
Slope-Intercept Form: $y = mx + b$

EX 4: $y = -3x + 7$



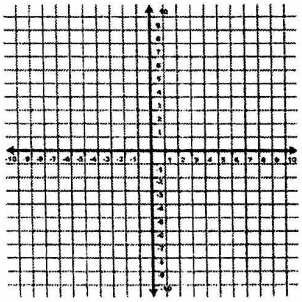
X-Intercept and Y-Intercept:

EX 5: State the intercepts.



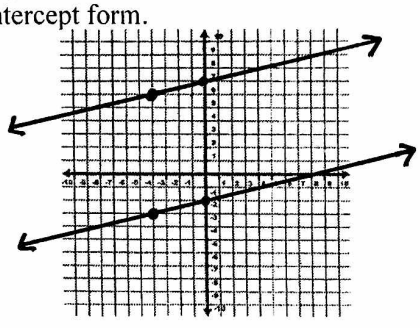
Standard Form: $Ax + By = C$

EX 6: $3x - 2y = -18$



Parallel Lines:

EX 7: Write the equation of two lines graphed in slope-intercept form.



Perpendicular Lines:

EX 8: Write the equation of two lines graphed in slope-intercept form.