

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

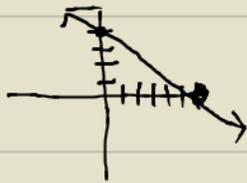
$\frac{x-12}{3} + \frac{y-12}{2} = 2$

$\frac{1}{3}x + \frac{1}{2}(0) = 2 \quad \frac{1}{3}(0) + \frac{1}{2}y = 2$

$\frac{1}{3}x = 2 \quad \frac{1}{2}y = 2$

$3(\frac{1}{3}x) = 3(2) \quad 2(\frac{1}{2}y) = 2(2)$

$x = 6 \quad y = 4$



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

$6(\frac{1}{3}x) + 6(\frac{1}{2}y) = 6(2)$

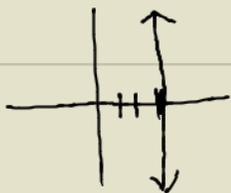
$2x + 3y = 12$

$3y = -2x + 12$

$\frac{3}{3}y = \frac{-2}{3}x + \frac{12}{3}$

$y = -\frac{2}{3}x + 4$

#4  $x = 3$



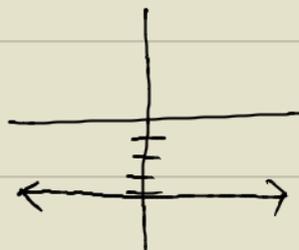
#5  $4y + 5 = -11$

$4y = -11 - 5$

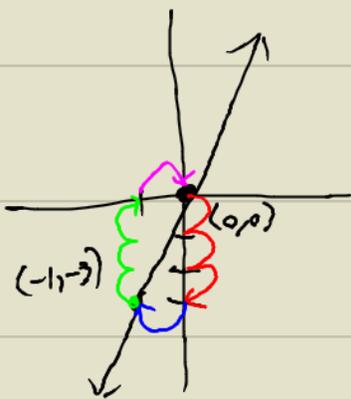
$4y = -16$

$\frac{4y}{4} = \frac{-16}{4}$

$y = -4$



#6



SLOPE

$m = \frac{\text{CHANGE IN } Y}{\text{CHANGE IN } X}$

POSITIVE → UP  
NEGATIVE → DOWN

POSITIVE → RIGHT  
NEGATIVE → LEFT

$m = \frac{-3}{-1}$

$m = 3$

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

$= 3$

FORMULA: GIVEN 2 POINTS  
 $(x_1, y_1) (x_2, y_2)$

$m = \frac{y_2 - y_1}{x_2 - x_1}$

#7

$(2, -3) \quad (-4, 5)$

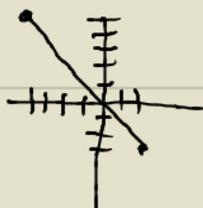
$x_1 \quad y_1 \quad x_2 \quad y_2$

$m = \frac{(5) - (-3)}{(-4) - (2)}$

$= \frac{5+3}{-6}$

$\frac{8}{-6}$

$(-\frac{4}{3})$



POS. SLOPE



NEG. SLOPE



$m = 0$



$m$  IS UNDEFINED