

Name:

KEY

UNIT 4 DAY 3 ACTIVITY

OBJECTIVE: WRITE EQUATIONS IN SLOPE INTERCEPT FORM

Write the equation of the line in slope-intercept form. When you see the HEART, come get it checked with the teacher!

1) Slope of -3 and the point (5, -9)

$$-9 = (-3)(5) + b$$

$$-9 = -15 + b$$

$$b = 6$$

$$y = -3x + 6$$

3) Given a slope of 0 and the point (8,2)

horizontal line!

$$y = 2$$

5) $f(9) = 3$ and $f(6) = 1$

$(9, 3)$ $(6, 1)$

$$m = \frac{3-1}{9-6} = \frac{2}{3}$$

$$1 = 6\left(\frac{2}{3}\right) + b$$

$$1 = 4 + b$$

$$b = -3$$

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

7) A line that runs through (2, 0) and (0, 4)

$$m = \frac{4-0}{0-2} = \frac{4}{-2} = -2 \quad m = -2$$

y-int = (0, 4) $b = 4$

$$y = mx + b$$

$$y = -2x + 4$$

2) A line that runs through (-4, -2) and (-3, 0)

$$m = \frac{0 - (-2)}{-3 - (-4)} = \frac{2}{-3 + 4} = \frac{2}{1} = 2$$

$$0 = (-2)(-3) + b$$

$$0 = 6 + b$$

$$b = -6$$

$$y = 2x - 6$$

4) A line that runs through (0, 1) and (-4, 0)

y-int! $m = \frac{1-0}{0-(-4)} = \frac{1}{4}$

$b = 1$ $m = \frac{1}{4}$

$$y = \frac{1}{4}x + 1$$

6) A line with an x-intercept of 4 and a y-intercept of -6

$(4, 0)$ $(0, -6)$

$$m = \frac{-6-0}{0-4} = \frac{-6}{-4} = \frac{3}{2}$$

$b = -6$

$$y = \frac{3}{2}x - 6$$

8) Given the slope of $-\frac{1}{3}$ and a point (-6, 3)

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

$$3 = -\frac{1}{3}\left(\frac{-6}{1}\right) + b$$

$$3 = 2 + b$$

$$1 = b$$

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