

Name: Answers

Grade 9

Date : _____

Mid-Year Review 01

1. What is the **equation** of a line passing through points $(-8, 290)$ and $(-3, 135)$?

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

$$a = \frac{135 - 290}{-3 - (-8)} = \frac{-155}{5} = -31$$

$$y = ax + b$$

$$290 = -31(-8) + b$$

$$290 = 248 + b$$

$$42 = b$$

Equation: $y = -31x + 42$

2. What is the **equation** of a line with a rate of change of $-\frac{1}{3}$, passing through point $(-6, 17)$?

$$y = ax + b$$

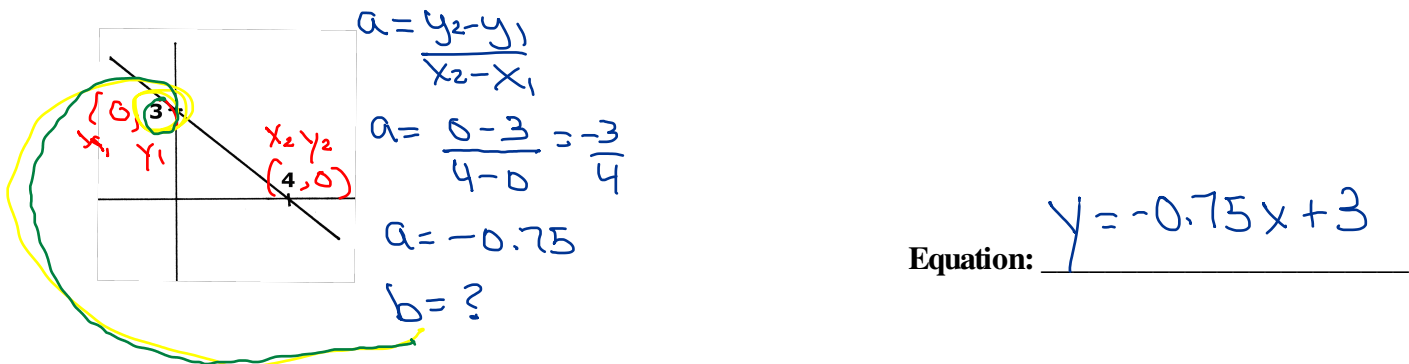
$$17 = -\frac{1}{3}(-6) + b$$

$$17 = 2 + b$$

$$15 = b$$

Equation: $y = -\frac{1}{3}x + 15$

3. What is the **equation** of the line represented in the graph below?



4. What is the **equation** of the line represented in the graph at right?

