Check Up

1. The graph of a linear relation with a slope of $-\frac{2}{3}$ contains the point $(-6, 5)$. Determine the equation of the relation, in slope-intercept form.

Compare your answer.

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The slope is given, so the equation will be of the form $y = -\frac{2}{3}x + b$. The value of b can be determined by substituting the given point into this equation and then solving for b.

$$y = -\frac{2}{3}x + b$$
$$5 = -\frac{2}{3}(-6) + b$$
$$5 = 4 + b$$
$$5 - 4 = \cancel{4} + b \cancel{-4}$$
$$1 = b$$

The equation of the relation is $y = -\frac{2}{3}x + 1$.