

Writing Linear Equations in Slope- Intercept Form

Given:

Slope &
y-intercept

Given:

A Graph

Given:

A Point &
the Slope

Given:

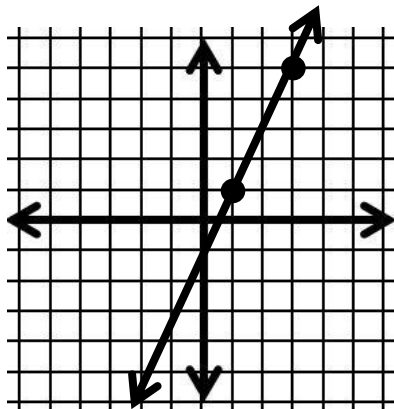
Two Points
(That the line passes
through)

Example 1:

Write an equation of the line with a slope of 3 and a y-intercept of -2.

Example 3:

Write an equation of the line shown.

**Example 5:**

Write an equation of the line that passes through (6, 3) and has a slope of 2.

Example 7:

Write an equation of the line that passes through the points (0, 4) and (6, 13).

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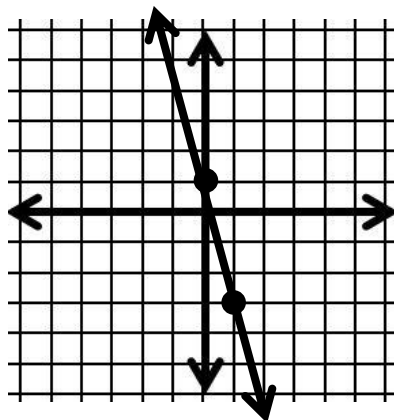
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Example 2:

Write an equation of the line with a slope of $-\frac{1}{4}$ and a y-intercept of 5.

Example 4:

Write an equation of the line shown.

**Example 6:**

Write an equation of the line that passes through (8, -4) and has a slope of $-\frac{3}{4}$.

Example 8:

Write an equation for the linear function f with values $f(6) = -4$ and $f(9) = -9$.

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Example 1:

Write an equation of the line with a slope of 3 and a y-intercept of -2.

$$y = mx + b$$

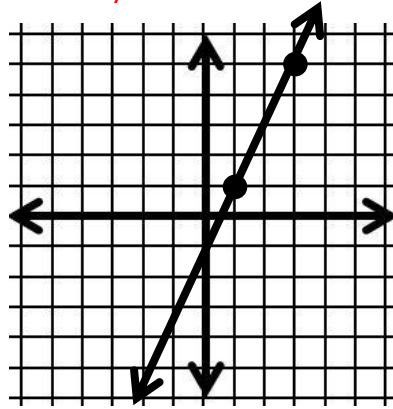
$$y = 3x - 2$$

Example 3:

Write an equation of the line shown.

$$y = mx + b$$

$$y = 2x - 1$$

**Example 5:**

Write an equation of the line that passes through (6, 3) and has a slope of 2.

$$y = mx + b$$

$$3 = 2(6) + b$$

$$3 = 12 + b$$

$$-12 \quad -12$$

$$-9 = b$$

$$y = 2x - 9$$

Example 7:

Write an equation of the line that passes through the points (0, 4) and (6, 13).

$$m = \frac{13-4}{6-0} = \frac{9}{6} = \frac{3}{2}$$

$$y = mx + b$$

$$4 = \frac{3}{2}(0) + b$$

$$4 = b$$

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

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Example 2:

Write an equation of the line with a slope of $-\frac{1}{4}$ and a y-intercept of 5.

$$y = mx + b$$

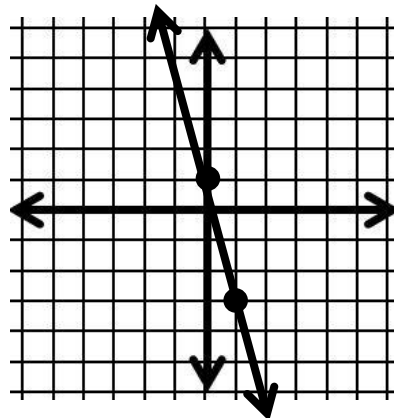
$$y = -\frac{1}{4}x + 5$$

Example 4:

Write an equation of the line shown.

$$y = mx + b$$

$$y = -4x + 1$$

**Example 6:**

Write an equation of the line that passes through (8, -4) and has a slope of $-\frac{3}{4}$.

$$y = mx + b$$

$$-4 = -\frac{3}{4}(8) + b$$

$$-4 = -6 + b$$

$$2 = b$$

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

Example 8:

Write an equation for the linear function f with values $f(6) = -4$ and $f(9) = -9$.

$$(6, -4) \text{ and } (9, -9)$$

$$m = \frac{-9-4}{9-6} = \frac{-5}{3}$$

$$y = mx + b$$

$$-4 = -\frac{5}{3}(6) + b$$

$$-4 = -10 + b$$

$$6 = b$$

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

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Directions:

Step 1: Photo copy the pages front to back (along the long edge) so that it looks like this:

Step 2: Fold in half (hotdog style).

Step 3: Cut along the dotted lines to create the 4 tabs.

Step 4: Glue down the center (where it says “glue here”) and fold the tabs up.

