

> TODAY'S AGENDA:

- Continue working on Khan Academy
- Mission: Engage NY Module 4

> Slope from Equation

- Today's Objective:

> Students will be able to determine the Slope of a Line

- Today's Standards:

> 8.F.B.4, HSA.SSE.B.3, HSF.IF.C.7, HSF.IF.C.7a, HSF.IF.C.8

Slope from an Equation

$$y = mx + b$$

↑
Slope

← y-intercept

What is the slope of the line?

$$-4x + 7 = 2y - 3$$

$$y = mx + b$$

Choose 1 answer:

A -2

B $-\frac{1}{3}$

C -3

D $-\frac{1}{2}$

$$\begin{aligned} -4x + 7 &= 2y - 3 \\ &+ 3 \end{aligned}$$

$$\begin{aligned} -4x + 10 &= 2y \\ &\div 2 \end{aligned}$$

$$\boxed{-2x + 5 = y}$$

What is the slope of the line?

$$6x + 10y = 8$$

Choose 1 answer:

A $-\frac{4}{5}$

B $-\frac{3}{4}$

C $-\frac{5}{4}$

D $-\frac{3}{5}$

$$\begin{array}{r} 6x + 10y = 8 \\ -6x \qquad -6x \\ \hline \end{array}$$

$$\frac{10y}{10} = \frac{-6x + 8}{10}$$

$$\frac{-6}{10} = \frac{-3}{5} \quad y = \left(\frac{-6}{10}\right)x + \frac{8}{10}$$

What is the slope of the line?

$$y + 1 = 3(x - 4)$$

Choose 1 answer:

A $\frac{1}{3}$

B $-\frac{4}{3}$

C $-\frac{3}{4}$

D 3

$$y + 1 = 3(x - 4)$$

$$y + 1 = 3x - 12$$

$$y = 3x - 13$$

What is the slope of the line?

$$4x - 1 = 3y + 5$$

Choose 1 answer:

A $\frac{2}{3}$

B $\frac{3}{2}$

C $\frac{3}{4}$

$\frac{4}{3}$

$$4x - 1 = 3y + 5$$

Handwritten work showing the original equation with a blue arrow pointing down to the coefficient 3 of y, and a blue arrow pointing left from the constant 5 to -5 below the equation. A horizontal blue line is drawn below the entire equation.

$$4x - 6 = 3y$$

Handwritten work showing the equation with the constant term -1 subtracted from both sides to get -6. A red arrow points from -1 to -6. The coefficient 3 of y is underlined in red.

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

Handwritten work showing the equation solved for y. The fraction $\frac{4}{3}$ is circled in red.