

Does this Line Up?




Learning Goal

Minds on Math...



Zinger #1:

What can you say about each of the following lines?

1	 $y = \frac{1}{2}x + 3$
2	 $y = 0.5x$
3	 $y = \frac{2}{4}x - 1$

Pull




Note: "Minds on..." based on assigned practice pp. 124-126 #3, 6, 8, 11

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Zinger #2:

Which of the following lines is the steepest?

1	 $y = \frac{1}{2}x + 3$
2	 $y = \frac{2}{3}x + 7$
3	 $y = \frac{3}{8}x - 1$

Pull

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Zinger #3:

What do you notice about the following set of lines?



Pull

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Zinger #4:

What do you know about the line that goes through the following points?

$(-3, 4)$, $(0, 4)$, $(5, 4)$

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Zinger #5:

What do you know about the line that goes through the following points?

$(4, -3)$, $(4, 0)$, $(4, 5)$

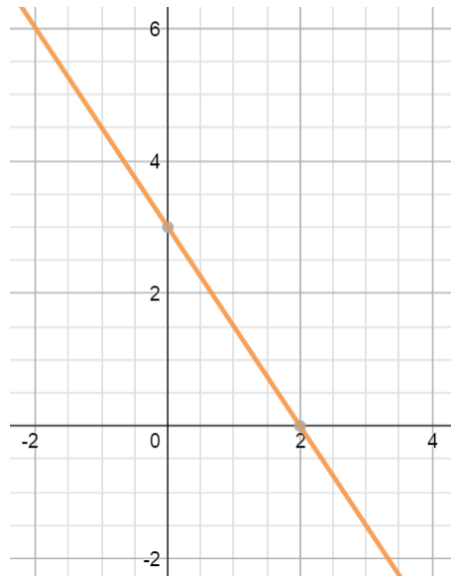
Pull

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Zinger #6:

What is the slope and y-intercept for the following line?



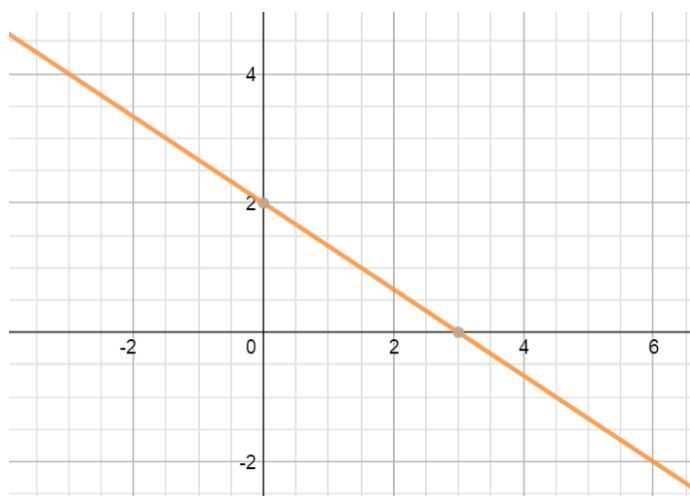
Pull

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Zinger #7:


What is the equation for the following line?



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Convert the following equation into slope-intercept form, $y = mx + b$.


1  $6x + 3y = 9$



Pull
Graph


Minds on Math: Graphing Lines

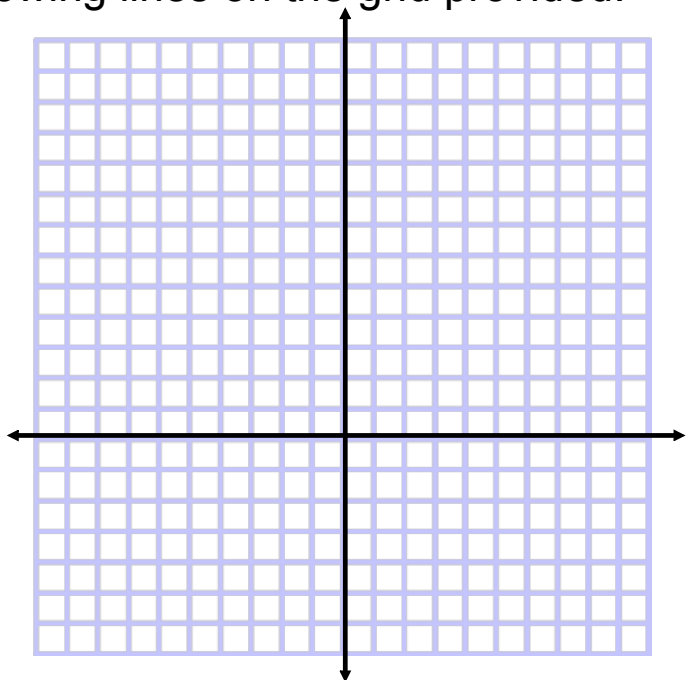
1-Graph each of the following lines on the grid provided.

1  $y = 2$
-10 

2  $y = -3x + 12$

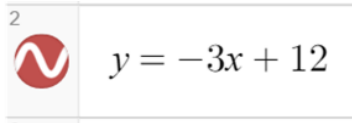
3  $y = 8$
-10 

4  $y = |$




Take Action: Part 1

2-Graph another line on your grid that is parallel to...

A screenshot of the Desmos calculator interface. It shows a red circular icon with a white 'v' shape inside, followed by the equation $y = -3x + 12$ in a text input field. A small '2' is visible in the top left corner of the input area.
$$y = -3x + 12$$

Pull

3-Take a look at the intersection of your lines. What shape have you created?

 <https://www.desmos.com/calculator/szsqtusekm>

Take Action! (Part 2)

Problem:

One side of a right triangle is part of the line with equation $y = -2$.

What could be the equations of the lines of which the other two sides are part?

Show your work.

[Note: The problem can be solved either by using tech or graphing by hand.]

Practice

Graphing Lines

-p143 #3, 4 (optional), 7, 9

-grid paper required

Converting from Standard to $y = mx + b$ form

-p187 #1, 4aceg, read Ex. 3 (p186) then answer
#5 (p188)