

Creating the equation of a line given 2 points 11.14.16

Weekend Welcome

SWBAT create the equation of a line given two points.

Warm up: Find the slope given the two points (3,4), (7, 9)

If we know that 2 points are on a line can we create the equation of that line? Yes.

There are two equations that we should focus on point slope form and slope intercept form.

Who remembers what point slope is? $y - y_1 = m(x - x_1)$

What is slope intercept is? $y = mx + b$

Lets talk about slope intercept form, in the equation $y = mx + b$ what two parts become numbers?

M and b

So given two points what can we find? The slope

What else do we need? B

So given the equation do we have an x,y, and m? So can we solve for b? Yes.

Lets try one together given the points (1,3) and (-1,1) find the equation of the line in point slope form. What is the slope? How can we create an equation? Solve for b.

Slope: 1. Equation $3 = 1(1) + b$ $b = 2$. Equation $y = x + 2$

You try: (-1,-3) and (1,-1)

How can we put this in points slope form?

Practice.

Hw: pg 284 #21-24(point slope and slope intercept form), 32-37