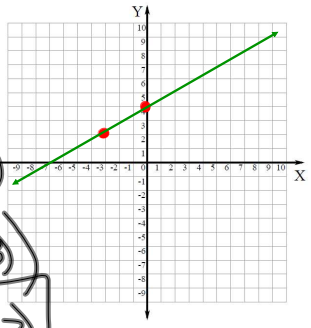
Starter 31 OCT 2018

Write the equation of the line passing through (-3, 2) and with a slope of 2/3. Graph the line.



$y-y_1=m(x-x_1)$

$y-2=\frac{2}{3}(x-(-3))$

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

We do: the line passing through $(-3,6)$ and $(8,-10)$

**What do we need??

slope

$m=\frac{y_2-y_1}{x_2-x_1}=\frac{-10-6}{8-(-3)}$

Now we are back to the above.

Step 1 : Substitute into point slope form

$m=\frac{-16}{11}$

$y-y_1=m(x-x_1)$

Step 2: Distribute

$y-6=\frac{-16}{11}(x-(-3))$

Step 3: Move constant

$y-6=\frac{-16}{11}(x+3)$

Step 4: Add like terms

Now the linear equation is in $y=mx+b$ form.

$m=$ _____ $b=$ _____

$y-6=\frac{-16}{11}(x-(-3))$

$11\cdot(y-6=\frac{-16}{11}(x+3))\cdot 11$

$11y-66=-16x-48$

$+66 \quad +66$

$\frac{11y}{11}=\frac{-16x}{11}+\frac{18}{11}$

$y=\frac{-16}{11}x+\frac{18}{11}$

You do: the line passing through $(-6,8)$ and $(-5,10)$

$m=\frac{10-8}{-5-(-6)}=2$

$y-y_1=m(x-x_1)$

$y-8=2(x-(-6))$

$y-8=2(x+6)$

$y - 8 = 2(x + 6)$

$y - 8 = 2x + 12$

$+8 \quad +8$

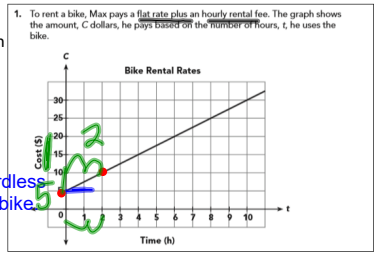
$y = 2x + 20$

a. Find the vertical intercept and explain what information it gives about the situation.
The vertical intercept is 5.

The vertical intercept tells me It is ~~the fee~~ he pays regardless of the hours he rents the bike.

b. Find the slope of the graph. $\frac{\$5}{2 \text{ Hours}}$

1. To rent a bike, Max pays a flat rate plus an hourly rental fee. The graph shows the amount, C dollars, he pays based on the number of hours, t, he uses the bike.



c. Explain the meaning of the slope in the given situation.
For, every 2 Hours he pays an additional $5.

d. How much would it cost to rent the bike for 1 day (24 hours)?
$5 + 60 = \$65$ $24 \div 2 = 12$ $12 \cdot 5 = 60$

$y - y_1 = m(x - x_1)$ $\quad m = \frac{y_2 - y_1}{x_2 - x_1}$

Write the equation of the line with the following informa

1) $(5,7)$ & $(6,8)$ $\quad m = \frac{8-7}{6-5}$

m = 1 Pt. Used (5,7)

Equatic $y - 7 = 1(x - 5)$

slope-intercept 1

Finish worksheet.

D $y - 7 = 1(x - 5)$

$y - 7 = x - 5$

$+7 \quad +7$

$y = x + 2$

slope intercept