Welcome to
AP Calculus AB A

Ms. Polchow (Ms. P.)

Sep 5-8:13 PM

With your partner, share

Name:
Grade:
Last Math Class & Teacher You Had

Share 2 things that happened during the summer.

Share 1 fun thing that you did over the summer.

Share something you expect to accomplish during this school year.

Dec 6-1:34 PM

My name is .....

and one fun thing I did over the summer was .....

Sep 3-3:07 PM

Roundtable
(Groups of 4)

Tell each other your name and your favorite color.

Topic: Anything Mathematical

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Sep 7-3:29 PM

Goal for this Class
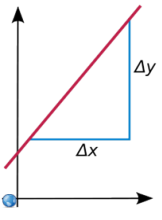
Sep 7-3:27 PM

1-1 Linear Functions and Graphs

Learning Objectives:

- I can find the slope of a line.
- I can write the equation of a line in slope intercept and point slope form.
- I can write the equations of lines parallel or perpendicular to a given line.

Aug 31-2:06 PM

1

Slope

$$slope = \frac{rise}{run} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{y - y_1}{x - x_1}$$

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

Aug 31-2:06 PM

Slope Intercept Form of a Line

$$y = mx + b$$

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

$\underset{slope}{m}$ $\underset{y\text{-intercept}}{b}$

Point Slope Form of a Line

$m = 2$
$(1, 5)$

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

$$y - 5 = 2(x - 1)$$

Aug 31-2:06 PM

Slope of $0 = \frac{0}{5} = \frac{0}{10} = 0$

undefined $= \frac{5}{0} = \frac{10}{0}$

Lines Review

$10\left(\frac{2}{5}x + \frac{1}{2}y = 10\right)$
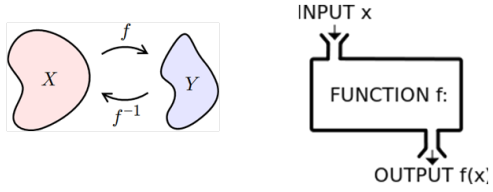
$Ax + By = C$ $4x + 5y = 100$

$A \geq 0$

no fractions

③ a. $2x + y = 4$ $(-2, 2)$
$y = -2x + 4$
$m = -2$

$y = -2x + b$ $\boxed{y = -2x - 2}$
$2 = -2(-2) + b$ b) $m = \frac{1}{2}$ $y = \frac{1}{2}x +$
$2 = 4 + b$ $2 = \frac{1}{2}(-2) + b$
$-2 = b$ $b = 3$

⑤
$m = \frac{y_2 - y_1}{x_2 - x_1}$ $3 = -2\left(-\frac{2}{3}\right) + b$ $y = 4\left(-\frac{2}{3}\right) + \frac{5}{3}$
           $b = \frac{5}{3}$ $\boxed{y = -1}$

Aug 28-9:56 AM

Aug 31-2:06 PM

Given $f(x) = 5x^2 - 2x + 5$

Find:

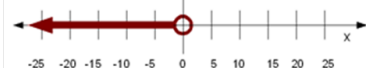$f(3) =$ $5(3)^2 - 2(3) + 5 = 45 - 6 + 5 = \boxed{44}$

$f(-2) =$ 29

$f(a-1) =$ $\overset{(a-1)(a-1)}{5(a-1)^2} - 2(a-1) + 5$

$5\left[a^2 - 2a + 1\right]$

$5a^2 - 10a + 5 - 2a + 2 + 5$

$5a^2 - 12a + 12$

Aug 28-9:37 AM

Inequality vs Set Notation

$-3 \leq x < 2$ $[-3, 2)$ $\mathbb{R}$

$x < 0$ $(-\infty, 0)$ $(-\infty, \infty)$

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2

Homework

pg 9 #6, 13-20, 29-32, 38, 41, 43, 47-52

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