

Algebra 1B - Chapter 4

Sept. 2024

Objectives/Learning Target for Week Sept 16-20

Anchor Descriptor - A1.2.1.2 Interpret and/or use linear functions and their equations, graphs or tables.

Eligible Content - A1.2.1.2.1 Create, interpret and/or use the equation, graph or table of a linear function.

Section 3 Chapter 4

Learning Target

Recognize and write equations of parallel and perpendicular lines.

Success Criteria

- I can identify parallel and perpendicular lines from their equations.
- I can write equations of parallel lines.
- I can write equations of perpendicular lines.

Section 4 Chapter 4

Learning Target

Use scatter plots and lines of fit to describe relationships between data.

Success Criteria

- I can read and interpret scatter plots.
- I can identify correlations between data.
- I can write and interpret an equation of a line of fit.

Overview Activities for Week: Sept 16-20

Monday: Warmup with solving for y in equations. Then use pg 65 of Black practice book with #5 on identifying linear equations that are parallel, perpendicular, or neither based on equation then graph to confirm. Use this problem for discussion and extension. Complete the page- problems # 1,2,3,6 as homework.

Tuesday: Pickup with #10 on Black Practice book pg. 65 as warmup and review homework. Continue with # 4,7-11 from the page and finish.

Wednesday: Warmup to complete self assessment problems on the dynamic classroom on this section. Teach how to put 2 equations in the calculator to verify the equation is parallel or perpendicular --- watch screen zoom and distortion.

Overview Activities for Week: Sept 16-20 --- continue

Thursday: Use Black Practice Book pg 67 on Scatterplot and relationships as note guide.

Also give HANDOUT 4.4 Reteaching and extra practice for work and example problems for notes. Discuss the plan of using a line of fit.



Key Idea

Using a Line of Fit to Model Data

Step 1 Make a scatter plot of the data.




Step 2 Decide whether the data can be modeled by a line.

Step 3 Draw a line that appears to fit the data closely. There should be about as many points above the line as below it.

Step 4 Write an equation using two points on the line. The points do not have to represent actual data pairs, but they must lie on the line of fit.


Overview Activities for Week: Sept 16-20 --- continue


Friday: Use Dynamic Classroom to monitor students practice of # 1-15 odds first.


 4.4 Practice with  **CalcChat** and  **CalcView**


Exercises 1 - 16




Sec. 4.4 > 4.4 Practice: Exercises 1 - 16 #1

 Check


 Guided Solution

 Skills Review



  Listen 

INTERPRETING A SCATTER PLOT The scatter plot shows the amounts x (in gigabytes) of random-access memory (RAM) and the prices y (in dollars) of 10 laptops.



RAM (x)	Price (y)
160	1400
160	1500

Overview

Writing LINEAR equations

Section 1 -- Slope Intercept Form

Section 2 -- Point Slope Form

Linear Functions rewrite

Period 3 Algebra 1B

Ch. 4 Section 1

Slope-Intercept Form

$y = mx + b$

m b

rate = $m = \frac{y-y_1}{x-x_1} = \frac{\text{rise}}{\text{run}}$ from 2 points

constant

one time POINT (x, y) $(0, b)$

begin at: y-axis

move mountain slope

example $y = -\frac{3}{2}x + 7$
 $y = 9$

Point-Slope Form

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

Slope m

Point (x_1, y_1)

Finish into other forms

Example: $f(3) = 3$ $f(-1) = 2$

function notation

1. Points $(3, 3)$ $(-1, 2)$
2. Slope $m = \frac{y-y_1}{x-x_1} = \frac{3-2}{3-(-1)} = \frac{1}{4} = 0.25$
3. Point-Slope Formula $y - y_1 = m(x - x_1)$
4. Simplify $y = mx + b$

$y - 2 = 0.25(x - (-1))$
 $y - 2 = 0.25x + 0.25$
 $y = 0.25x + 2.25$