Nutrition Task:

The table below shows fat grams and calories for some breakfast sandwiches.

Nutrition Facts

Breakfast Sandwich	Total fat (g)	Calories
	X	У
Arby's Bacon 'n Egg Croissant	25	410
Burger King Croissanwich with Suasage, Egg and	39	520
Cheese		
Carl's Jr. Sunrise Sandwich	21	356
Hardee's Country Steak Biscuit	41	620
Jack in the Box Soudough Breakfast Sandwich	26	445
McDonald's Sausage McMuffin with Egg	28	450
Sonic Sausage, Egg, and Cheese Toaster	36	570
Subway Ham and Egg Breakfast Deli Sandwich	13	310

a) Make a scatter plot of the data. Describe any patterns you notice.

- b) Select two points and find the equation of the line that passes through these two points in point-slope form. Graph the equation on the scatter plot.
- c) According to your model, how many calories would you expect in a Hardee's Country Steak Biscuit with 41 grams of fat.
- d) Does the actual data point representing the Hardee's Country Steak Biscuit lie above, on, or below the line you graphed in part c? Explain what the point's location means.
- e) Check each breakfast sandwich to find if its data point falls above, on, or below your line.
- f) Based on your results for d and e, how well does your line fit the data?
- g) If a sandwich has 0 grams of fat, how many calories does your equation predict? Does this answer make sense? Why or why not?