

Agenda

Homework:

- Line Of Best Fit
WS
- CN Summary
- AM

Materials:

- Calculator
- Ruler

DO NOW

1) On your DESK:

Solve for y when $x = 35$

$$y = 4x - 124$$

- Solve for y when $x = 35$

$$y = 4x - 124$$

Set up Cornell Notes

- **Topic:** Scatterplots – Predictions
- **EQ:** Explain how you use a line of best fit equation to predict data

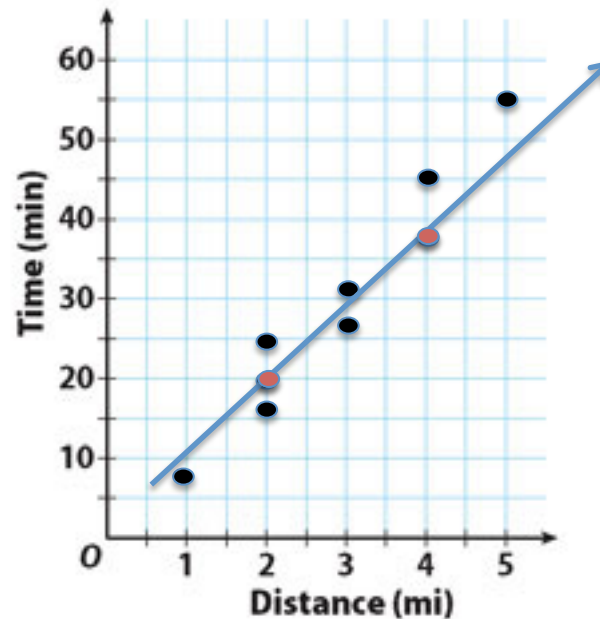
Update Table of Contents:

2/24/16 (Pd 1,2)	Scatterplots- Predictions
2/25/16 (Pd 4)	

How do you use your line of best fit to predict information?



Distance (mi)	Time (min)
4	38
2	25
1	7
2	16
3	26
5	55
2	20
4	45
3	31



- 1). Plot your data
- 2). Draw your line of best fit
- 3). Choose two points ON YOUR LINE

(2, 20) (4, 38)

How much time will it take to run 26 miles?

How do you determine the equation for the “line of best fit”?



4. Find the slope of the two points:

$(2, 20)$ $(4, 38)$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{38 - 20}{4 - 2} = \frac{18}{2} = \frac{9}{1} = 9$$

5. Use one of the points and the slope to find b

$$20 = 9(2) + b$$

$$\begin{array}{r} 20 = 18 + b \\ -18 \quad -18 \\ \hline \end{array}$$

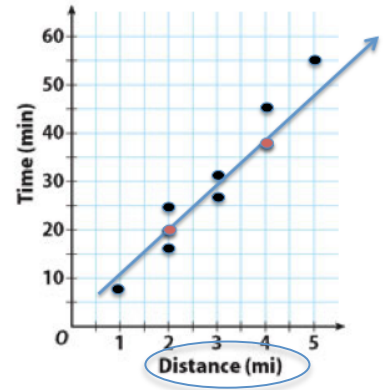
$$2 = b$$

6. Plug in m & b

$$y = 9x + 2$$

How do you use your line of best fit to predict information?

How much time will it take to run 26 miles?



7. Plug in the given number into your x or y variable.

Miles = x variable

$$x = 26$$

$$y = 9(26) + 2$$

$$y = 234 + 2$$

$$y = 236$$

8. Write your answer in a complete sentence.

It will take approximately 236 minutes to run 26 miles.

Station work

- [Worksheets](#)