## Modeling Data 8.5

Name:

Ready, Set, Go!



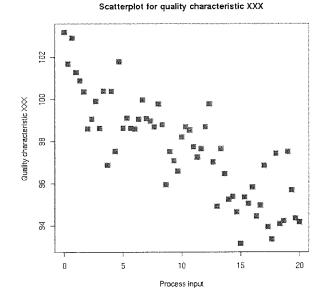
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## Ready

Topic: Estimating the line of best fit

Examine the scatterplot below. Imagine that you drew a straight line through the general pattern of the points, keeping as close as possible to all points with as many points above the line as below.

- 1. Predict a possible y-intercept and slope for that line.
  - a. y-intercept: \_\_\_\_\_
  - b. slope:
- 2. Sketch the line that you imagined for question #1 and write an equation for that line.



© 2012 http://en.wikipedia.org/wiki/File:Scatter\_diagram\_for\_quality\_characteristic\_XXX.svg

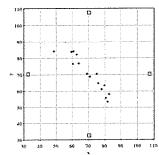
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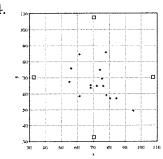


Set

Topic: Estimating the correlation coefficient

## Match the scatterplot with its correlation coefficient.





Possible

## **Correlation Coefficients**

a. 0.05

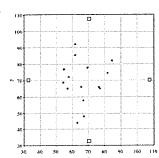
b. 0.97

c. -0.94

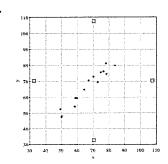
d. -0.49

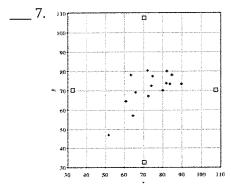
e. 0.68

\_\_\_ 5.



\_ 6.





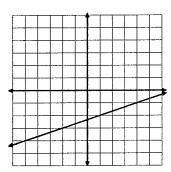
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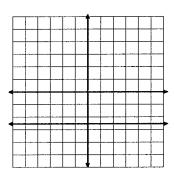
Topic: Visually comparing slopes of lines

Follow the prompt to sketch the graph of a line on the same grid with the given characteristics.

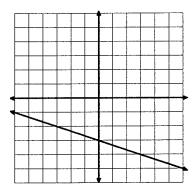
8. A larger slope



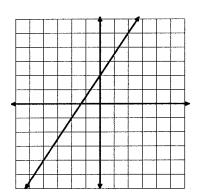
9. A smaller slope



10. A larger y-intercept and a smaller slope



11. Slope is the negative reciprocal



Need Help? Check out these related videos:

 $\underline{http://www.khanacademy.org/math/algebra/linear-equations-and-inequalitie/v/fitting-a-line-to-data}$ 

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