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| NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **Stats** |
| **Scatterplots – Finding best fit line** | **DATE: October 6, 2015** |

*Draw a line through your data as best you can. Find two points that the line goes through and then find its equation.*

*So if the line goes through (4,5) and (8,-23)*

Remember all lines can be expressed as

y=mx+b

where

m=slope

b = y-intercept

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| **Steps:**   1. Find the **slope**. 2. Re-write **y=mx+b** with the slope (which is m). 3. Find the **y intercept**.    1. Now use one point and substitute it into the equation for y and x and solve for b 4. Re-write **y=mx+b** with the y-intercept (which is b). | ***Our points are*** *(4,5) and (8,-23)*  1.  2. y=-7x+b  3. Lets substitute (4,5) in and solve for b   |  |  | | --- | --- | | y=-7x+b | Start with our equation | | (5) = -7(4) +b | 4 is x, and 5 is y | | 5 = -28+b | Simplify | | +28 +28 | Add 28 on each side to get b alone | | 33 = b | b, the y-intercept is 33 |   4. y=-7x+33 |