

Regression

1. There is, of course, a correlation between the hours someone studies with how many questions they miss on an exam. Here are some hypothetical data points:

(1.2, 13) (2.4, 9) (2.9, 5) (3.7, 2)

- a. Plot all these points on a grid.
- b. Describe the correlation using SODS.
- c. Write an equation of a line that seems to fit. You don't have to be incredibly precise.
- d. Fill in the following table for your prediction line.

Hours of study	Observed questions missed	Predicted questions missed	Residuals

e. Calculate the standard deviation of observed data. Use software to help.

f. Calculate the standard deviation of the residuals. Use software to help.

g. Calculate the r^2 of your equation/model. Show your work/formula.