Regression, part I

First, how is regression different from correlation?

What is a least squares lines, and how do we fit one to our data?

(You should know that there are other ways of fitting a line, but that's all you need to know about any other "methods")

How do you calculate this line? In specific, how do you get b_0 and b_1?

What is SS_{cp}?

What is your equation for the line?

Don't confuse your equation of a line with the equation for Y_i

The equation for Y_i is not an equation of a line and includes e_i as an extra term.

Why is this useful?

What is the difference between $\hat{Y}_i$ and Y_i?

What are we estimating with b_0 and b_1?

Be able to sketch the least squares line given the equation.

Comment: be a bit careful when reviewing this material if you have the 4th edition. In class we are taking the approach used by the 2nd and 3rd edition. This is also the approach used in the notes.