Day 17 Scatterplots

Scatterplot	Shows the relationship between two quantitative variables on the
	same cases (individuals).
is plotted on the x-axis.	Explanatory (independent/input) variable
is plotted on the y-axis.	Response (dependent/output) variable
Once we make a scatterplot, we	1. Form: straight, curved, no pattern, other?
describe association by telling	2. Direction: + or – slope?
about:	3. Strength : how much scatter {how closely points follow the form}
	4. Unusual Features: outliers, clusters, subgroups?
is a deliberately vague	Association
term describing the relationship	
between two variables. If	
positive then	increases in one variable generally correspond to increases in the
	other.

How to make a scatterplot with your calculator:

TI83/84 (this assumes the explanatory variable is input to L1 and the response variable to L2) 2^{nd} , Y= (STAT PLOT), Plot1, ENTER, choose the first plot type, Xlist:L1, Ylist:L2, Mark: +, ZOOM 9

TI89 (this assumes the explanatory variable is input to list1 and the response variable to list2) F2 (Plots), 1:Plot Setup, clear out unnecessary plots by moving the cursor and pressing F3, F1 to start defining Plot 1, press the right arrow to select the plot type, ENTER to select 1:Scatter, Mark: +, $x = list1 [2^{nd}, - (VAR-LINK select list1 ENTER)], y = list2, F5$

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1) **a**) List (think of) two examples that would exhibit: Positive association:

Negative association:

Relatively no association:

b) List (think of) one example that would exhibit: Linear association:

Very strong association:

2) pg. 164-165 / 1, 3, 5, 7.

3) complete the problem on page 2 of the notes investigating wine consumption and heart a tacks.