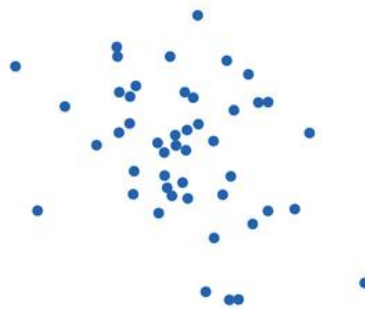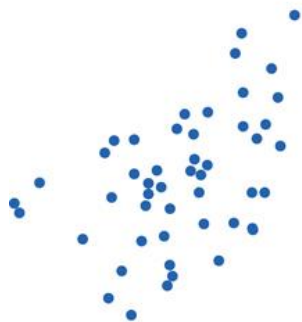Correlation $r = 0$

Correlation $r = -0.3$
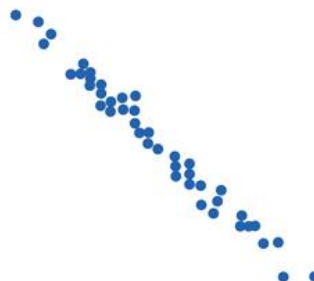
Correlation $r = 0.5$
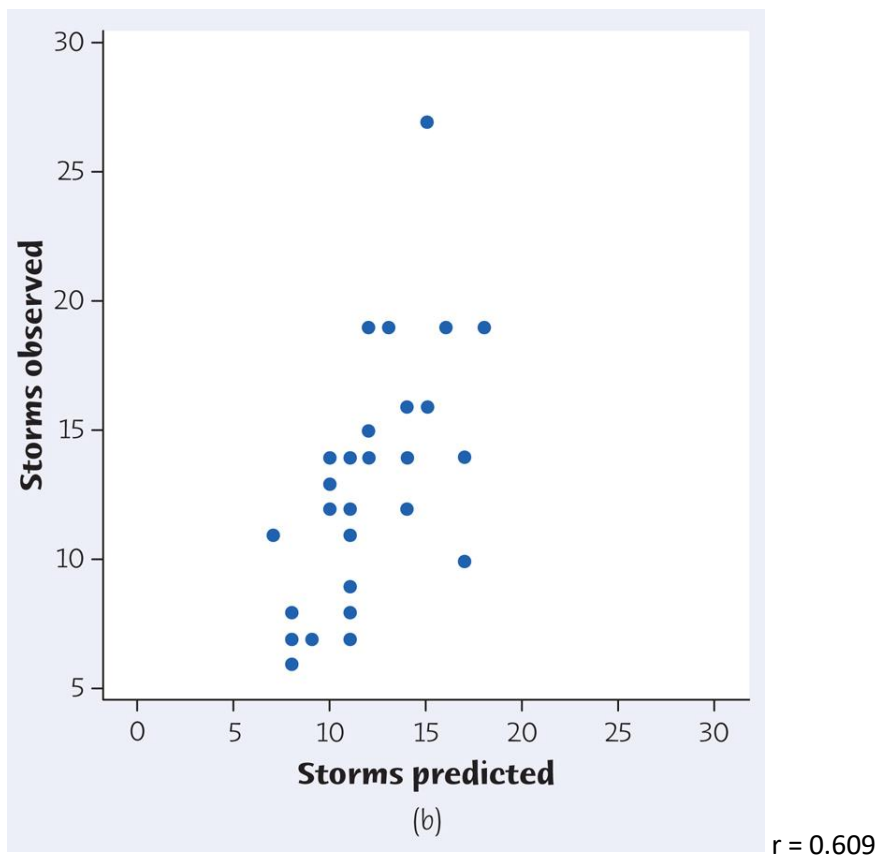
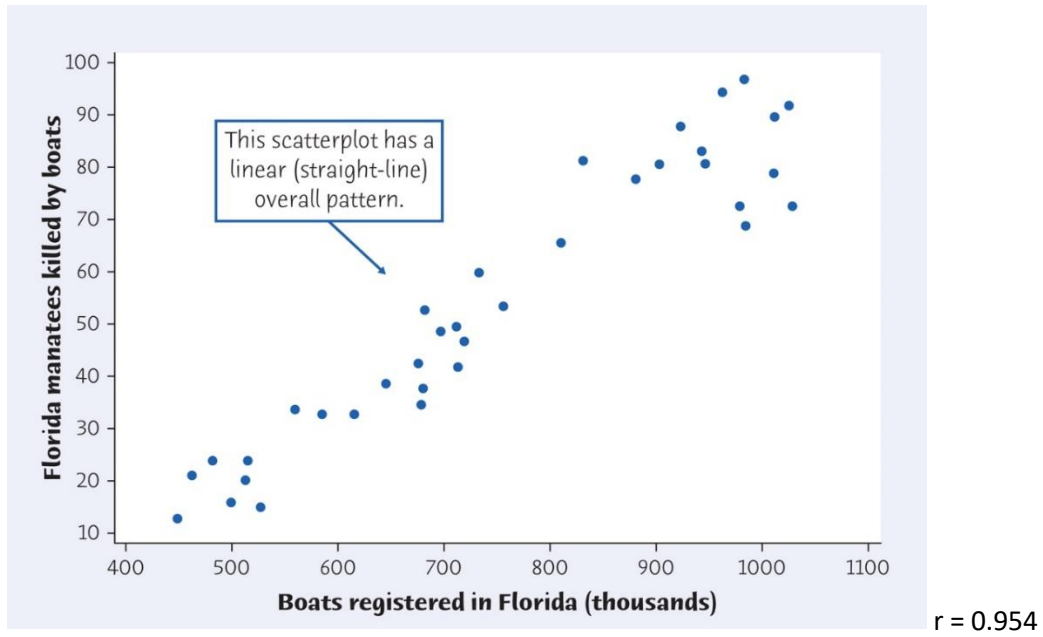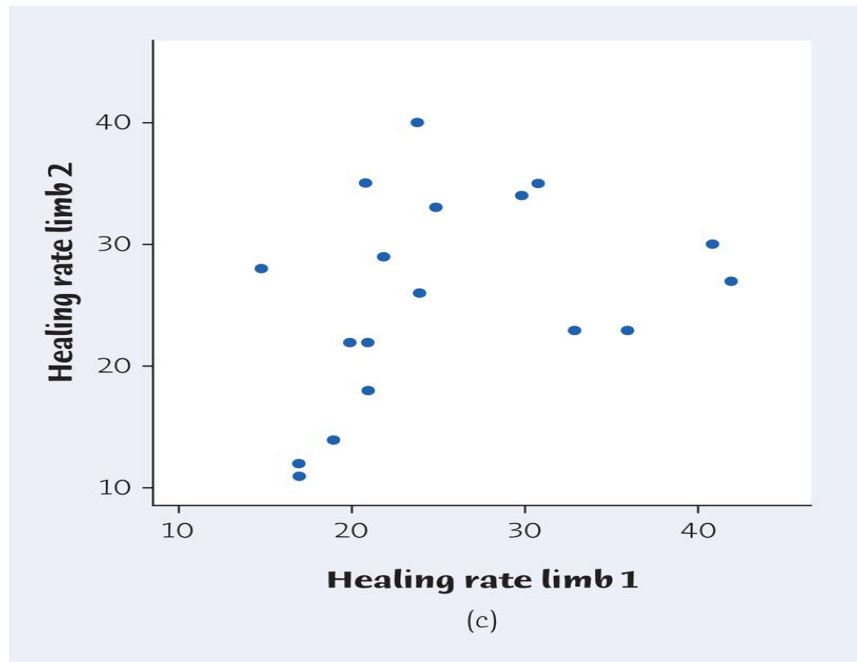Correlation $r = -0.7$

Correlation $r = 0.9$

Correlation $r = -0.99$

This scatterplot has a linear (straight-line) overall pattern.

r = 0.954

(b)

r = 0.609

Healing rate limb 2 vs Healing rate limb 1
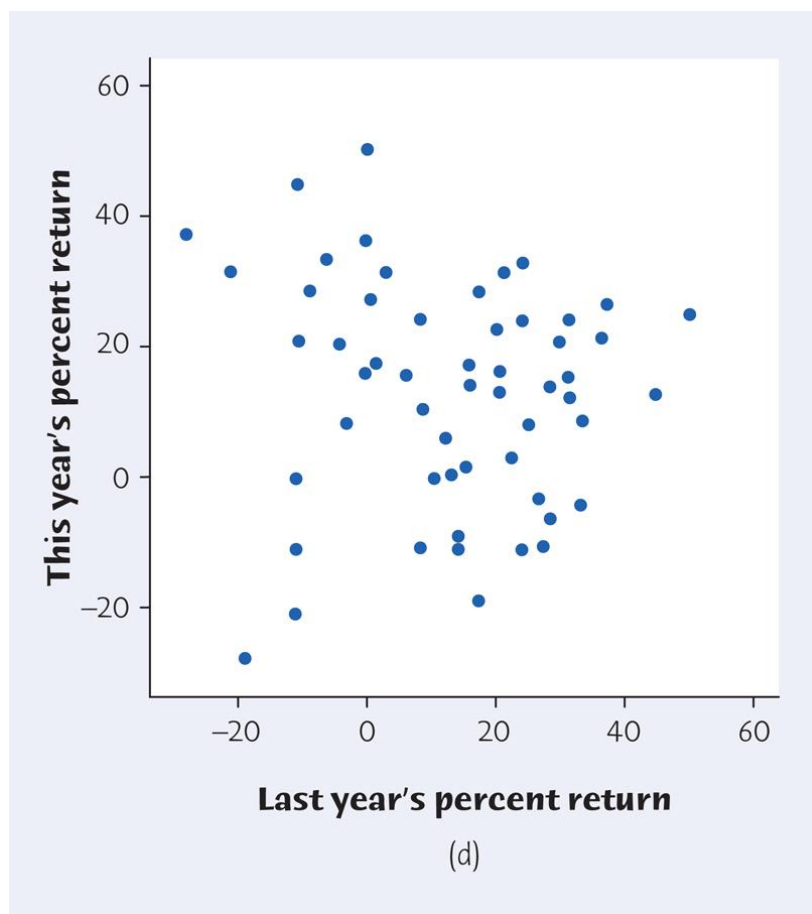
(c)

r = 0.358

This year's percent return vs Last year's percent return

(d)

r = -0.081

4 cases of r

X increases Y increases

Brand vs Quality

X increases Y decreases

Cop Patrols vs Crime Rate

X decreases Y increases

Literacy Rate vs Crime Rate

X decreases Y decreases

Quality vs Sales

Each of the following statements contains a blunder. Explain in each case what is wrong.

(a) "A correlation of -1 means that two variables have no association whatsoever."

(b) "The correlation between atmospheric CO2 and Sea Surface temperature was found to be 33.49 degree Fahrenheit."

(c) "There is a high correlation between ethnicity of American workers and their income."

(d) "We found a correlation of 1.02 between exercise and life span in the elderly."

(e) "If X increases with the increase in Y values, almost linearly, then r would be negative."

(f) "There is a negative correlation between number of cigarettes smoked per day and the blood pressure of the individual."

(g) "r will be negative when X decreases and Y also decreases."