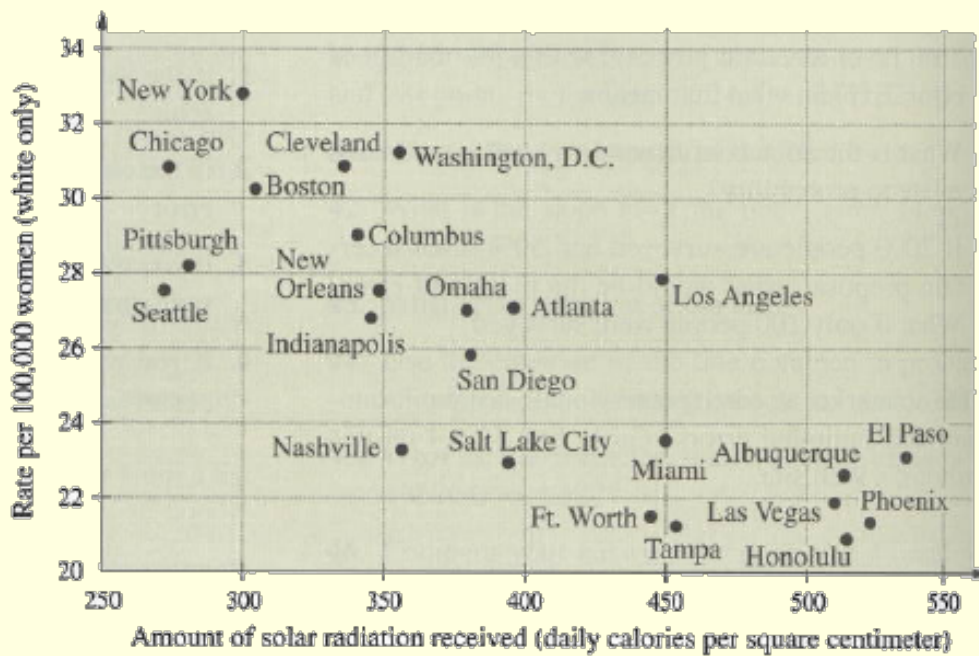


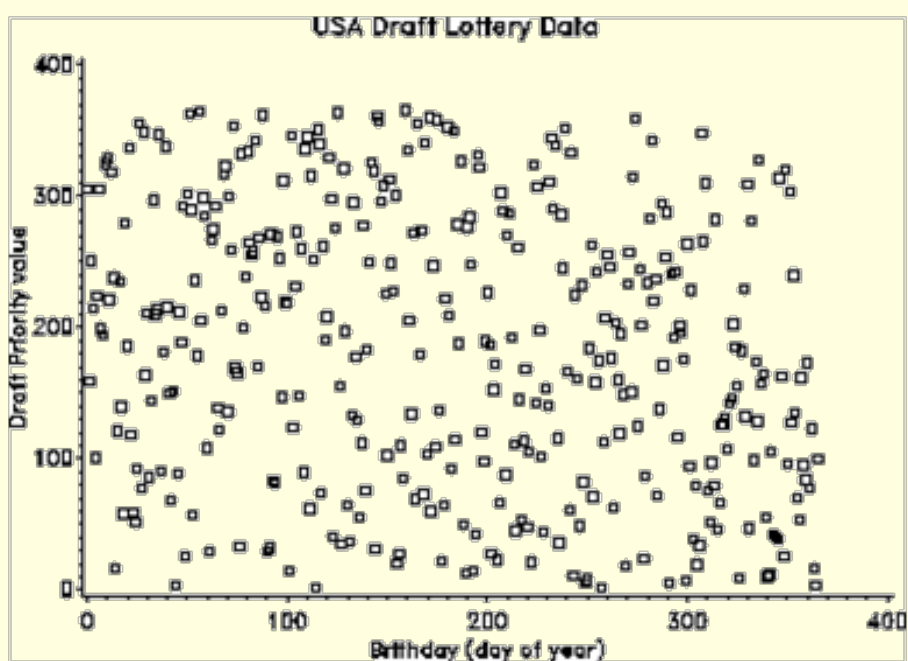
5.2 Scattergrams and Correlation

Scattergram "Stories"

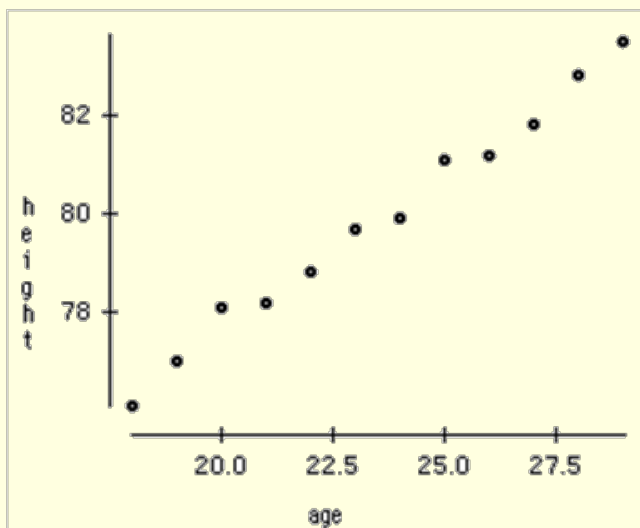


Source: Frank Garland.

Scattergram "Stories"



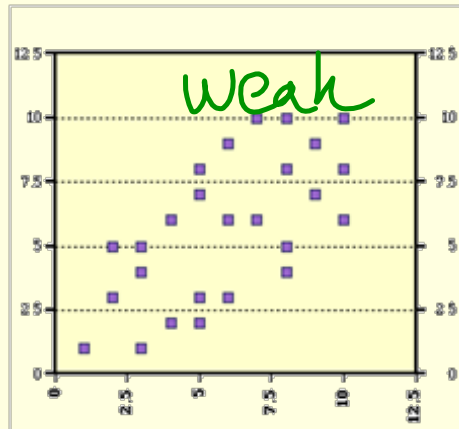
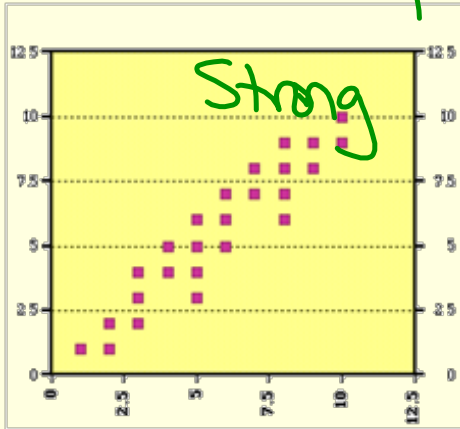
Scattergram "Stories"





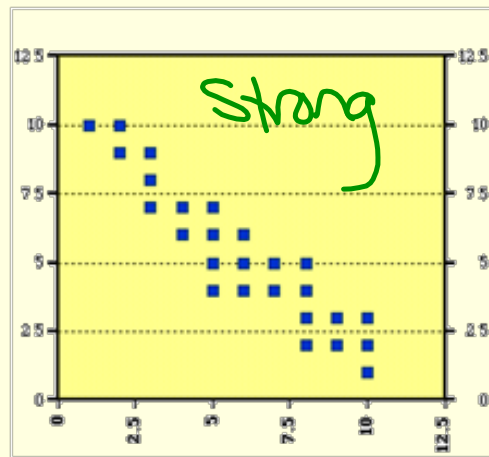
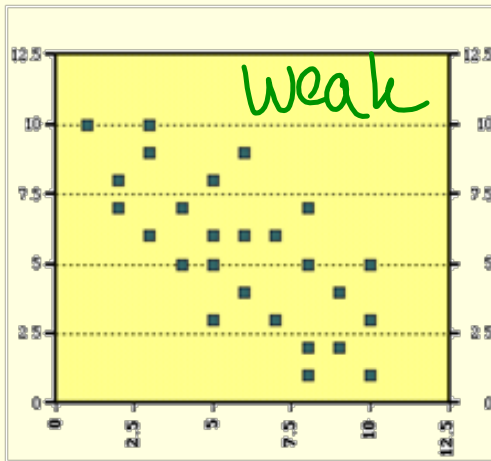
Correlation

positive



As one variable ^{increases} the other variable ^{increases}

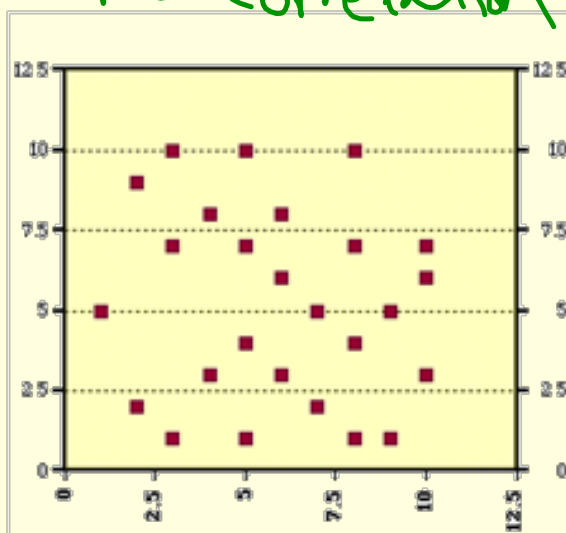
Correlation
Negative



As one variable ^{increases}, the other variable ^{decreases}

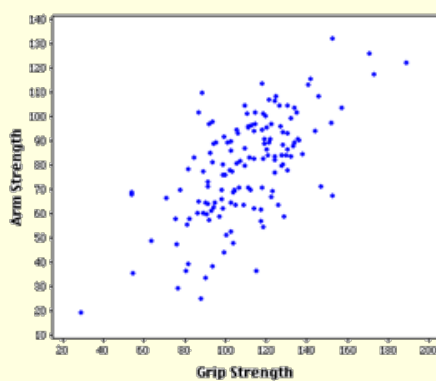
Correlation

no correlation

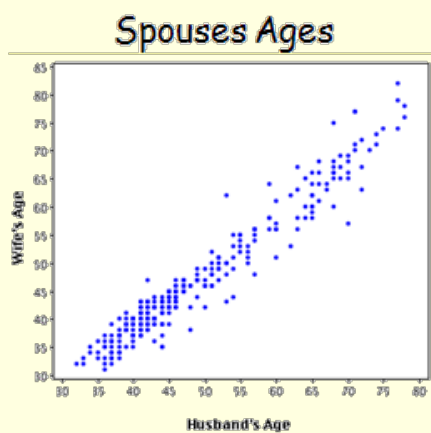


Correlation

Grip Strength
and Arm Strength

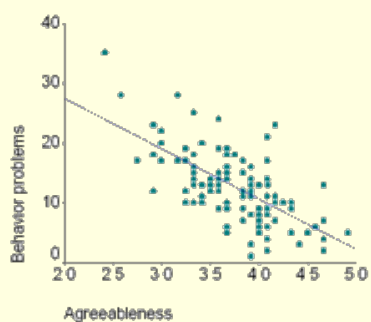


Correlation



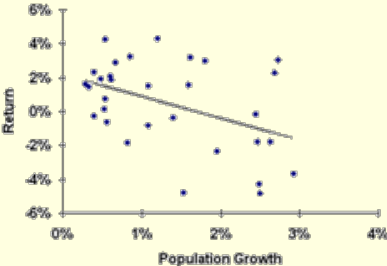
Correlation

Degree of Agreeableness
vs. # of Behavior Problems



Correlation

Population Growth vs. GDP Growth



IB Practice A

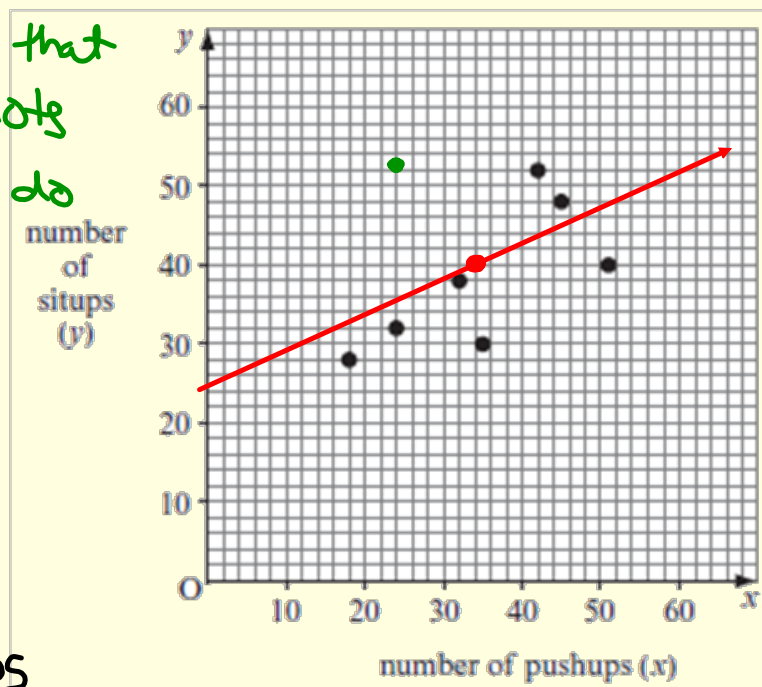
positive correlation

a) In general it appears that if a student can do lots of pushups they can also do more situps.

$$c) \bar{x} = 34$$

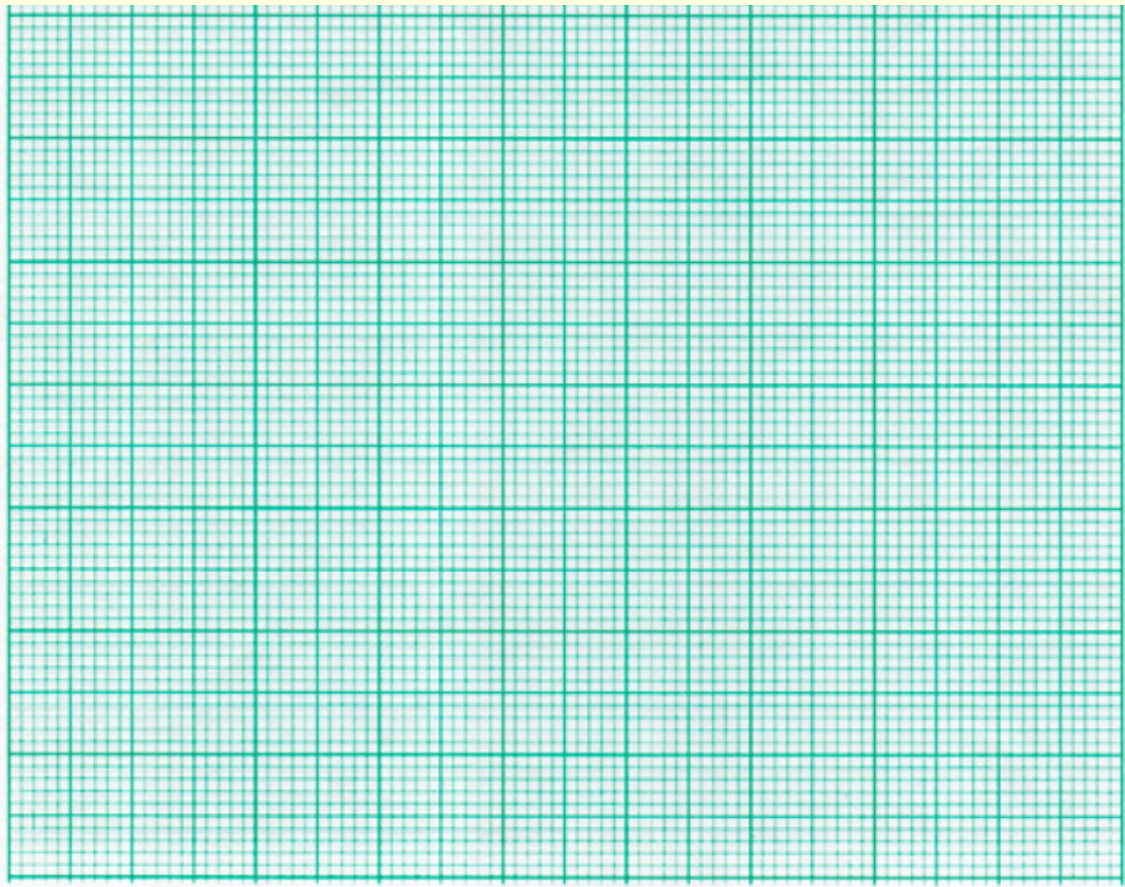
$$\bar{y} = 40$$

d) 49 or 50 situps



IB Practice B

- b) i) Write down the mean value of the load (\bar{x})
- ii) Write down the standard deviation of the load
- iii) Write down the mean value of the length (\bar{y})
- iv) Write down the standard deviation of the length



Homework: WS 5.2 1-6all