

## Worksheet – Sections 4.1-4.2

1) A person observed the number of trees and the number of bird nests in 6 different gardens.

# trees	1	2	4	5	7	9
# nests	2	1	4	6	5	8

a) Sketch by hand the scatter plot. Put the number of trees on the horizontal axis.

b) Comment on the trend, strength, shape of the correlation between the number of trees and the number of bird nests.

2) A researcher measured the average annual temperature at 20 different stations at varying elevations on a mountain range.

Elevation (km)	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.4	1.5	1.7	2.1	2.3	2.6	2.7	2.9	3.1	3.2	3.5	0.4	1.9
Temperature (°C)	24.5	23.9	21.8	22.1	20.2	19.4	17.5	15.9	14.8	13.1	10.2	8.8	6.2	5.8	4.5	2.3	1.9	-0.5	22.5	12.5

a) Use StatCrunch to sketch the scatter plot. Put the elevations on the horizontal axis.

b) Comment on the trend, strength, shape of the correlation between the elevation and temperature.

c) Find the correlation coefficient.

d) If you found a weather station at an elevation of 4.0 km (which is higher than any of our data points), what would you predict is the temperature there?