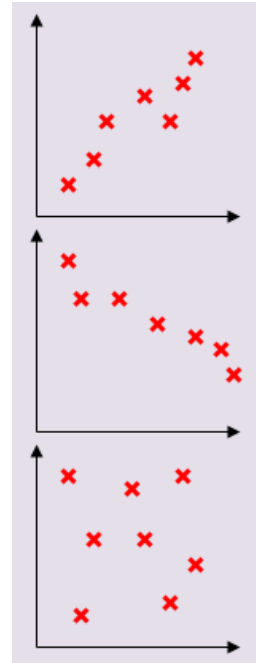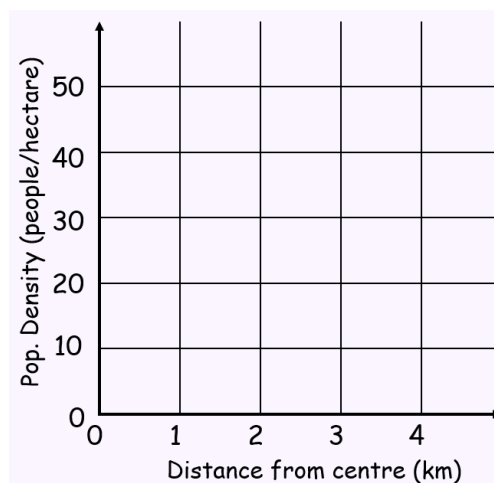# 4A Correlation & Drawing Scatter Diagrams

1. In the study of a city, the population density, in people/hectare, and the distance from the city centre, in km, was investigated by choosing sample areas. The results are as follows:
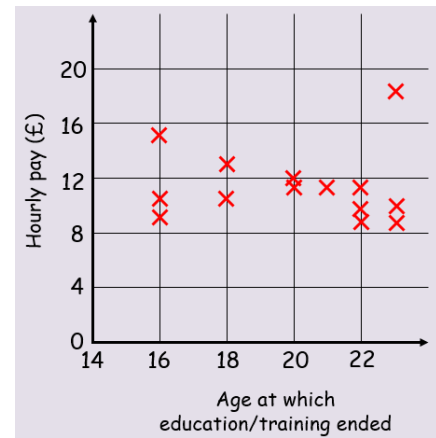
Area	A	B	C	D	E
Distance	0.6	3.8	2.4	3.0	2.0
Pop. Density	50	22	14	20	33

Area	F	G	H	I	J
Distance	1.5	1.8	3.4	4.0	0.9
Pop. Density	47	25	8	16	38

Plot a scatter graph and describe the correlation. Interpret what the correlation means.

2. Hideko was interested to see if there was a relationship between what people earn and the age at which they left education or training. She asked 14 friends to fill in an anonymous questionnaire and recorded her results in a scatter diagram.

a) Describe the type of correlation shown

Hideko says that her data supports the conclusion that more education causes people to earn a lower hourly rate of pay

b) Give one reason why Hideko's conclusion might not be valid