

Correlation 4A

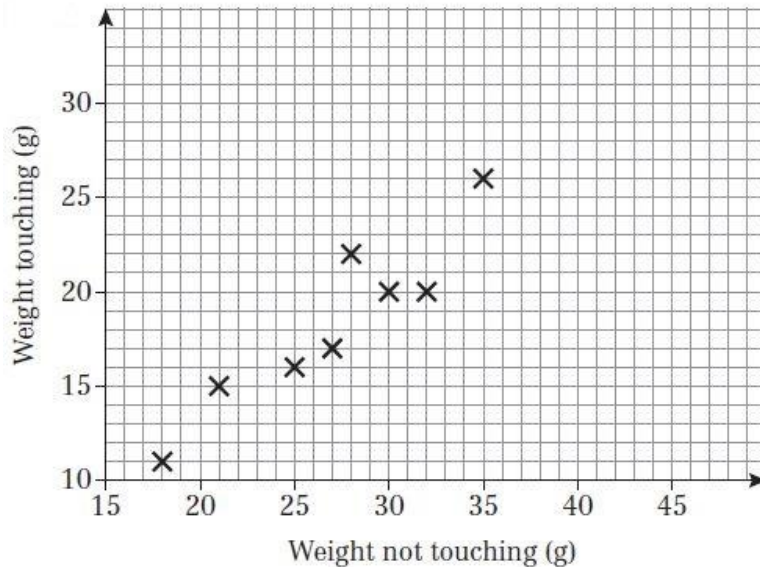
1 a Positive correlation.

b The longer the treatment the greater the loss of weight.

2 a There is no correlation.

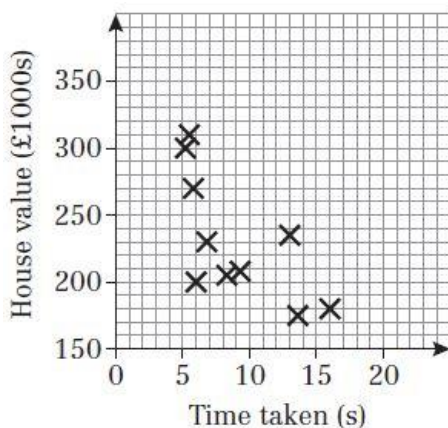
b The scatter graph does not support the statement that hotter cities have less rainfall.

3 a



b It shows positive correlation. Each student's tendency to guess lower or higher than the mean was the same in both tests.

4 a



b There is weak negative correlation.

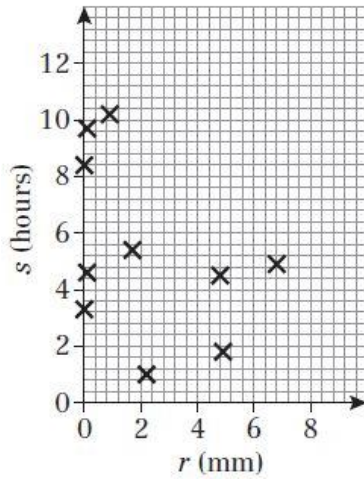
c For example, there may be a third variable that influences both house value and internet connection, such as the distance from built up areas.

5 a $Q_3 + 1.5(Q_3 - Q_1) = 4.85 + 1.5(4.85 - 0.1) = 11.975$

As $21.7 > 11.975$, r is an outlier.

- 5 b i The outlier is part of the distribution of the data.
It is unlikely to be an anomaly.
- ii 21.7 is an outlier so may not be representative of the typical rainfall.

c



- d There is weak negative correlation.
- e There could be a causal relationship, as days with more rainfall will have more clouds and therefore less sunshine.