Correlation 4A

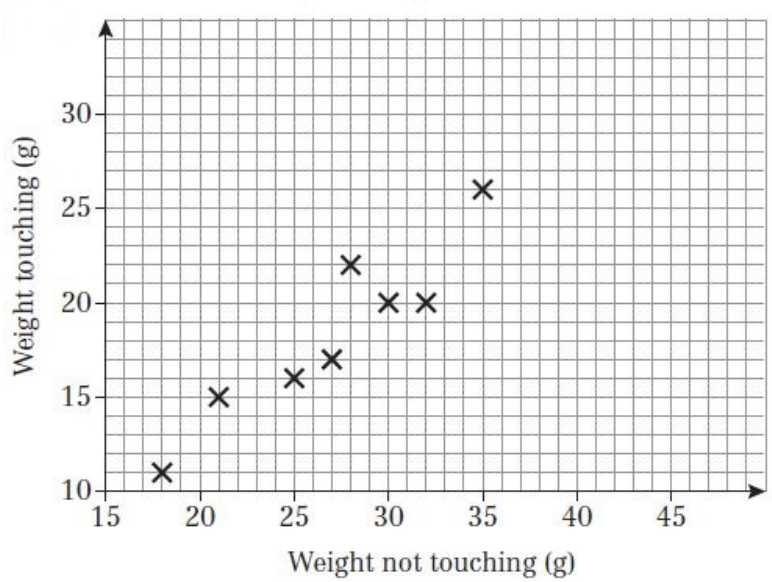
1 a Positive correlation.

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

2 a There is no correlation.

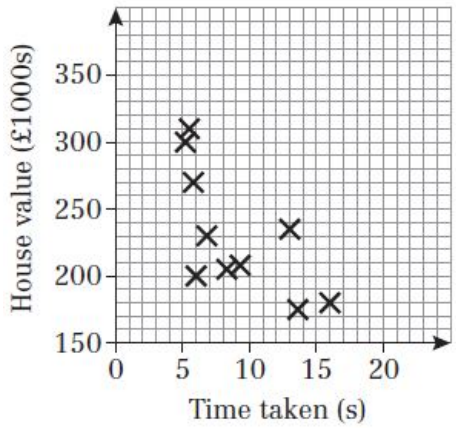
b The scatter graph does not support the statement that hotter cities have less rainfall.

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

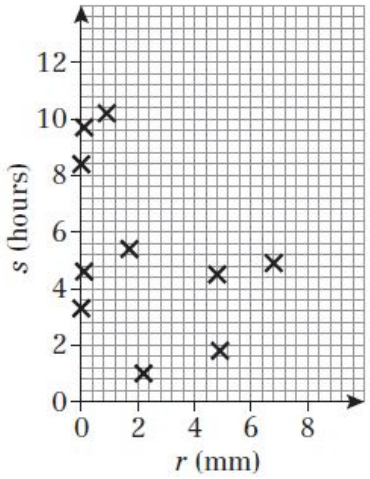
As $21.7 > 11.975$, r is an outlier.

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5 b i The outlier is part of the distribution of the data.
It is unlikely to be an anomaly.

ii The outlier is likely to have no significant effect on the correlation.
It would have an effect on any mean averages calculated.

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.

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