

Assessment Guidelines – 91581 – Investigate Bivariate Measurement Data

	Achieved (all compulsory)	Merit	Excellence
Problem	An appropriate relationship question is posed in context and linked to research. Statement given about why variables were chosen in context.	The question is justified in context and linked to research.	The choice of variables is reflected on and linked to the context and research.
Plan	Data source is identified. The explanatory and response variables are clear.		
Data	Scatter plot(s) is produced with title and labelled axis and regression line fitted.	Residuals plot may be produced.	
Analysis	Features in the data are identified from a visual inspection and described. This should include: <ul style="list-style-type: none"> • Trend (linear or not) • Association (direction) • Relationship (strength) • Scatter • Grouping • Outliers Other features and unusual points have been identified.	Findings are justified with reference to evidence from the displays and statistics and the links findings to their research and purpose. Causation may be discussed in context. The appropriateness of the model may be justified by discussion of fit throughout the range of x-values in the data or the number of data points. An analysis of the residuals may be used.	Contextual evidence and research is integrated to support discussion about the features of the data. Features are reflected on by discussing their relevance. Improvements to the model may be considered by considering other variables (eg: separating the data into relevant subsets or looking at another related variable). The adequacy and strength of the model is reflected upon. A deeper understanding of the model is shown.
Predictions	A prediction is made in context that is sensible with respect to the context and uses units and sensible rounding.	The precision of the prediction could be discussed by reviewing the strength of the relationship and the scatter on the graph close to the relevant explanatory data value.	The choice of variable used for predictions is justified by giving reasons for using the selected one rather than others. Reflection is made on predictions by discussing their relevance.
Conclusion	A conclusion is given that is consistent with the question and linked to the purpose.	The conclusion is linked to the question with contextual support.	The conclusion shows a deeper understanding of the data and research and contextual reasons are made to support findings.

Final grades will be decided using professional judgement based on a holistic examination of the evidence provided against the criteria in the Achievement Standard.