Assessment Guidelines – 91580 – Investigate Time Series Data

	Achieved (all compulsory)	Merit… Achieved PLUS	Excellence… Merit PLUS
Problem	Identify a purpose for the investigation	Purpose is clear (compulsory)	Research is used to develop purpose (compulsory)
Plan	Select a variable to investigate that links to the purpose	Context is researched	
Data	Graph the raw and the smoothed data Appropriate model is fitted and can be given as an equation, a fitted line or a graph of the smoothed data Must have the following: • Recomposition graph • Seasonal Plot and estimated seasonal effects • Raw data plus predictions plus prediction intervals *Although iNZight does not include units you should write the units on the graph by hand or by using text boxes*	Graph must have a title, correctly labelled axes and any series shown on the graph(s) are clearly identified	Other relevant variables are discussed. This could include creating a new variable from the variables given
Analysis	Give quantitative description of the trend and linked to context Seasonal pattern described and linked to context Must discuss: • Long term trend • Seasonal effects • Residuals Other relevant features are identified Forecasts are made with correct units	The appropriateness of the model is justified throughout the entire range of x-values Other relevant features must be explained in context and comments made must be supported with statistical evidence Forecasts are given in context and rounded correctly Discussion given on how precise the predictions might be based on reliability of the trend or seasonal components Understanding shown that forecasts are estimates	Provide possible explanations for the features of the graph A comparison of predicted values for the most recent data values of the model could be made Comparison between two data sets could be made
Conclusion	Conclusion is consistent with the purpose of the investigation	Conclusion must be given in context (compulsory)	The purpose of the investigation is addressed (compulsory) There is a reflection on the analysis with respect to the background research undertaken Impact of the findings is discussed

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