Practice Assessment 2: Temperature

Name:

Dataset Information

Temperature data from the weather station at Auckland Airport sourced from NIWA.

Variable	Description
Month	The Month of the Data
Tmax	Average Maximum Temperature for the Month
Tmin	Average Minumum Temperature for the Month

Problem

Use research to develop a hypothesis.

Trend Hypothesis

Seasonal hypothesis

Hypothesis:

Data

Click here to go to NZGrapher.

Copy and paste your graphs here. Remember to include title, axis labels and units.

- Time series graph and/or Re-Composition graph (with added start and end points),
- Seasonality graph,
- Forecast graph,
- Forecast output table (predicted values).

Analysis

Describe the features of your model.

Trend:

Seasonality:

Outliers:

Variation:

Conclusion

Summarise your findings,

State your model and make two forecasts.

Include research and reflections on the process. This could consider other relevant variables, an evaluation of the adequacy of the model, consideration of the validity of your forecasts, or a deeper understanding of the model.

Summary:

Predictions:

Fit of the model:

Reflection / Other factors:

Time series marking grid

	Achievement (all required)		Merit (all required)		Excellence (all required)	
Problem	Trend hypothesis with contextual explanation. Needs to include: Numeric variable (with units), Time variable (with start/end points), Direction.		Trend hypothesis with **supporting** research		Trend and Seasonal hypotheses with **research** that explains WHY	
Plan & Data	Time series or re-comp. graph including trend line & start/end points Seasonal graph Forecast graph Forecast table (predicted values)					
Analysis	**Overall trend** in context: Start date & smoothed value (**NOT** raw data) End date & smoothed value (**NOT** raw data) Units		Interpret gradient of **overall trend** (rounded with units)		Telling the story with research Trend, Seasonality	
	Seasonality identified in context: Peak Trough		**Seasonality** justified in context: Peak value Trough value Units		**Insight** (**ONE of**): Other factors, Fit of the model with insight (2 factors from trend, seasonality & variation) Piecewise trend, with start & end dates and values Any other insightful analysis	
Conclusion	**Point** prediction in context with units		**Overall** fit of the model discussed			
	Summary of trend		Link findings to the research			