VCE Further Mathematics Semester 1 2018

Text book (new 2016*): Cambridge Further Maths Unit 3&4

Week starting	Data Analysis	
	Content	**Class work/ Homework**
	Term 1	
Holiday Homework	Classifying data	https://edrolo.com.au/swinburne/ (Create account by putting in your last name) Ex 1A Q1 to 6
Holiday Homework	Displaying and describing the distributions of categorical variables	Ex 1B Q1 to 7
Holiday Homework	Displaying and describing the distributions of numerical variables	Ex 1C Q1 to 9
Holiday Homework	Using a log scale to display data	Ex 1D Q 1 to 4
Holiday Homework	Dot points and stem plots	Ex 2A Q1 to 5
Holiday Homework	The Median, range and interquartile range (IQR)	Ex 2B Q1 to 8
Holiday Homework	The five number summary and the box plot	Ex 2C Q1 to 10
Holiday Homework	Relating box plots to shape	Ex 2D Q1
Holiday Homework	Using box plots to describe and compare distributions	Ex 2E Q1 to 3
Holiday Homework	Describing the centre and spread of symmetric distributions	Ex 2F-1 Q1 to 8
Holiday Homework	Standard deviation	Ex2f-2 Q1 to 6
30/Jan	The Normal distribution and the 68-95-00.7% rule	Ex 2G Q1 to 5
	Standard Score	Ex 2H Q1 to 4
5-Feb	SAC on Chapter 2	Chapter 2 Review
	SAC on Chapter 1	Chapter 1 Review
8-Feb	Response and Explanatory variables	Ex 3A Q1 to 2
	Investigating associations between categorical variables	Ex 3B Q1 to 4
	Investigating the association between a numerical and categorical variable	Ex 3C Q1 to 3
	Investigating associations between two numerical variables	Ex 3D Q1 to 5
12-Feb	How to interpret a scatterplot	Ex 3E Q1 to 3
	Calculating the correlation coefficient	Ex 3F Q1 to 3
	The coefficient of determination	Ex 3G Q1 to 3
	Correlation and causality	Ex 3H Q1 to 7
19-Feb	Which graph?	Ex 3I Q1 to 2
	SAC on Chapter 3	Chapter Review
	SAC on Chapters 1 to 3 (Major SAC)	SAC 1
26-Feb	Least-squares regression line	Ex 4A Q1 to 3
	Determine the equation of the least squares line	Ex 4B Q1 to 8
	Performing a regression analysis	Ex 4C Q1 to 10
5-Mar	Constructing a regression analysis using raw data	Ex 4D Q1 to 3

	SAC on Chapter 4	Chapter Review
12-Mar	Data transformation	Ex 5A Q1
	Using data transformation to linearise a scatterplot	Ex 5B Q1 to 7
	The log transformation	Ex 5C Q1 to 7
	The Reciprocal transformation	Ex 5D Q1 to 6
19-Mar	SAC on Chapter 5 SAC on Chapters 4-5 (Major)	Chapter Review SAC 2
26-Mar	Time series data	Ex 6A Q1 to 10
	Smoothing a time using moving means	Ex 6B Q1 to 11
	Smoothing a time series plot using moving medians	Ex 6C Q1 to 5
	Term 2	
16-Apr	Seasonal Indices	Ex 6D Q1 to 17
23-Apr	Fitting a trend line and forecasting	Ex 6 E Q1 to 6
	SAC on Chapter 6 (Major)	chapter Review SAC 3
30-Apr	Sequences	Ex 8A Q1, 2
	Recurrence relations	Ex 8B Q1 to 4
	Modelling linear growth and decay	Ex 8C Q1 to 8
7-May	Rules for the nth term in a sequence modelling linear growth or decay	Ex 8D Q1 to 12
	Modelling geometric growth and decay	Ex 8E Q1 to 6
	Rules for nth term in sequence modelling geometric growth or decay	Ex 8F Q1 to 13
14-May	Nominal and effective interest rates	Ex 8G Q1 to 7
	SAC on Chapter 8	Chapter Review
21-May	Combining geometric growth and decay	Ex 9A Q 1 to 3
	Analysing reducing-balance loans with recurrence relations	Ex 9B Q1 to 7
	Using a finance solver to analysis reducing-balance loans	Ex 9C Q1 to 9
28-May	Interest only loans	Ex 9D Q1 to 3
	Annuities	Ex 9E Q1 to 9
	Perpetuities	Ex 9F Q1 to 5
	Compound interest investments with regular additions to principal	Ex 9G Q1 to 8
4-Jun	SAC on Chapter 9	Chapter Review
6-Jun	SAC on Chapters 8 and 9 (Major)	SAC 4