UNIT 3 FURTHER MATHS INDEX

Course Outline/Assessment

Types of Data

Univariate Analysis

Organising Data Frequency Tables for a Categorical Variable Bar Charts Single Segmented Bar Charts Frequency Tables for Numerical Data Histograms Histograms using Logarithmic Scales Dot Plots Stem and Leaf Plots Introduction to Box Plots Calculating and Interpreting Summary Statistics

Measures of Centre

Mode Median Mean

Measures of Spread

Range Interquartile Range (IQR) Standard Deviation Five Number Summary Boxplots Outliers Describing the Shape of a Distribution The Normal Distribution Standard Z-Scores Samples and Populations

Bivariate Data

Displaying, Summarising and Describing Relationships in Bivariate Data Two Categorical Variables One Categorical and One Numerical Variable Back-To-Back Stem and Leaf Plots Parallel Boxplots Two Numerical Variables Measuring the Strength and Direction of a Relationship (r value) Coefficient of Determination Correlation and Causation

Introduction to Regression Analysis

The Least Squares Regression Line Interpolation, Extrapolation and Interpretation Reliability Interpretation of Gradient and *y*-intercept Calculating the Least Squares from Summary Data Residuals and Residual Plots Types of Residual Plots

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Displaying, Summarising and Describing Time Series Data

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Predicting With Time Series

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Flat Rate Depreciation Reducing Balance Depreciation Unit Cost Depreciation

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Perpetuities