



GRADE 12: Math 33

STRAND: Statistics

TASK: Box and Whisker Plots

PRODUCTIVITY TOOL: Spreadsheet

TIMELINE: 1 Class

LEVEL OF DIFFICULTY: ☺ Easy

Given information regarding a series of surveys, students will be asked to interpret the results with a measurable degree of confidence. Students will be asked to determine confidence intervals using box and whisker plots with 80 or 90% confidence.



The learner will:

- C6** 4.1 investigate and solve problems of prediction, calculation and inference
- 4.2 investigate and solve problems of organization and manipulation of information
- 4.3 manipulate data by using charting and graphing technologies in order to test inferences and probabilities
- 4.4 generate new understandings of problematic situations by using some form of technology to facilitate the process
- 4.5 evaluate the appropriateness of the technology used to investigate or solve a problem
- F1** 4.1 assess the strengths and weaknesses of computer simulations in relation to real-world problems
- 4.2 solve mathematical and scientific problems by selecting appropriate technology to perform calculations and experiments
- 4.3 apply terminology appropriate to technology in all forms of communication
- 4.4 demonstrate an understanding of the general concepts of computer programming and the algorithms that enable technological devices to perform operations and solve problems
- P2** 4.1 manipulate and present data through the selection of appropriate tools, such as scientific instrumentation, calculators, databases and/or spreadsheets






Curriculum Outcomes

GRADE 12: Math 33

STRAND: Statistics

TASK: Box and Whisker Plots

General Outcome

-  Students will be expected to demonstrate an understanding that the results of a survey can be interpreted with measurable degrees of confidence.

Specific Outcomes

- 2.3 draw box plots of the results of multiple samples (50 per cent and 90 per cent box plots)
 - 2.3.1 carry out investigations involving multiple samples taken from populations with known and unknown proportions of yes responses
- 2.4 use charts of 90 per cent box plots to find the confidence interval within which a survey result can be interpreted
 - 2.4.1 use statistical inferences to solve problems based on 90 per cent confidence intervals

