Week 3
Term 03
2015

# Learning Brief

**MA4 Statistics and Probability**

## Goals

This week we will

- learn how to calculate and make use of the mean
- investigate the standard deviation as a tool in statistics

## Theoretical Components

Do not forget to look at the theory before the exercises in the JacPlus text.

This clip provides an explanation for finding mean, median and mode for grouped data.

http://www.youtube.com/watch?v=vqHEFqKU5gQ

**Important**

For simple sets of data you are expected to be able to analyse the data manually, however, for most sets of data you should use CAS.

In the Google classroom there is an Excel file called Box Plot Tool which enables you to enter data and draw box plots.

## Practical Components

These exercises come from the Jacplus book **Maths Quest 12 Further Mathematics – Chapter 1**

Calculating mean Ex 1G Q1 a) e), Q2 a) d) Q4, Q6

Mean from frequency table Ex 1G Q1 b), Q 3

Mean from grouped data Ex 1G Q7 a) c), Q8

Standard deviation (manually) Ex 1H Q1 b) d)

Do these using CAS Ex 1H Q1 e), Q2, Q3, Q4, Q5

## Investigation

This week's investigation is to research Standard deviation – what it is and explain why it is useful to know what the standard deviation of a set of data is.

A short paragraph is sufficient – make sure that you write enough to show demonstrate your knowledge.

## QFO

Quiz/Forum/Other