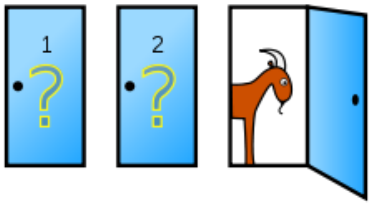
Week 02
Term 3
2013

Learning Brief

MM4: Probability, Statistics & Applications

Goals



By the end of this week, you should be able to:

•Compute and interpret mean, median, range, interquartile range and mode
•Use the summary statistics to describe the centre of the distribution
•Display the five number summary using box plots
•Use the box plot to comment on the skewness of the dataset
•Determine whether a dataset has outliers
•Compute and use the standard deviation to comment on the spread in a dataset.

Theoretical Components

You will require Chapter 1 of Maths Quest Further Maths 12 (Jacplus e-text):
1. Read through Section 1E on Median, Study and make notes on Examples 9 – 11.
2. Read through Section 1F on Box Plots, study and make notes on worked examples 12-16
3. Read through Section 1G on Mean, study and make notes on worked examples 17 & 18.
4. Read through Section 1H on Standard Deviation, study worked example 19 & 20
Make your notes on the following key concepts:
•Mean, median, interquartile range, range, mode and standard deviation
•Box plots
When to use mode, median or mean?
http://www.abs.gov.au/websitedbs/a3121120.nsf/home/statistical+language+-+measures+of+central+tendency

Why do we measure spread?
http://www.abs.gov.au/websitedbs/a3121120.nsf/home/statistical+language+-+measures+of+spread

You will require Chapter 1 of Quest Further Maths 12 (Jacplus e-text):
1. Read through Section 1E on Median, …. Study and make notes on Examples 9 – 11.
2. Read through Section 1F on Box Plots, study and make notes on worked examples 12-16
3. Read through Section 1G on Mean, study and

Practical Components

Do the following questions. Organise your solutions neatly in your exercise book:

EX 1E: 1, 3, 5, 8

EX 1F: 1, 2, 6, 8

EX 1G: 1, 3, 7, 8

EX 1H: 2, 3, 4, 5, 6

Investigation

Double investigation – see the following page

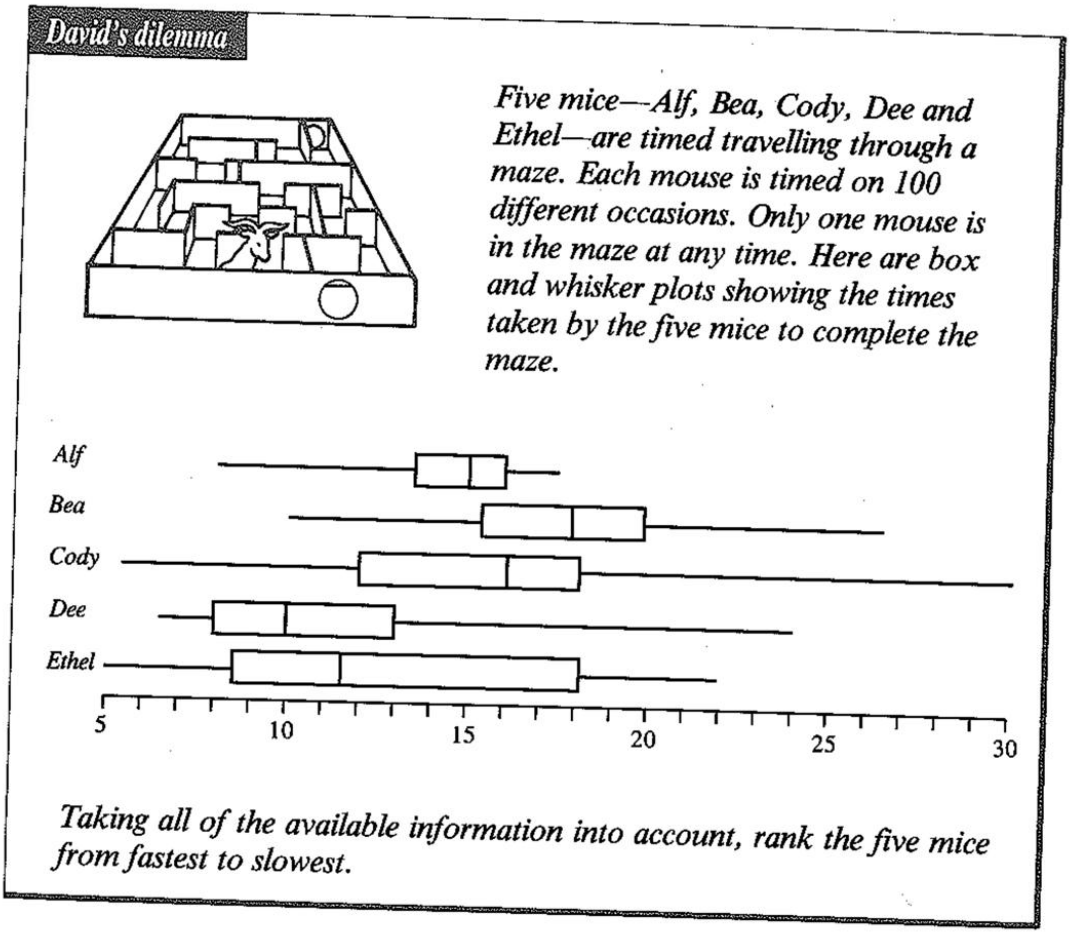
QFO

Quiz/Forum/Other

No quiz or forum this week

INVESTIGATION WEEK 2

Task 1



Source: Future Maths 11B. Source: Future Maths 11B

Task 2

Write clear instructions with a supporting example to demonstrate how you would use your CAS to:

- Find the standard deviation of a set of scores
- Produce a box and whiskers for a set of scores

http://www.classpad.com.au/