

**ASPLEY STATE HIGH SCHOOL  
YEAR 11 PRE-VOCATIONAL MATHEMATICS  
SEMESTER 1 2009  
ASSIGNMENT 1**

Date given: 6 February 2009

**Due date: 23<sup>rd</sup> February 2009**

2 weeks

Student's Name \_\_\_\_\_

Teacher's Name \_\_\_\_\_

KNOWING

APPLYING

EXPLAINING

/ 20 = %

A B C D E

A B C D E

**THE OLYMPIC GAMES**

Background

The Olympics is a chance for many countries to showcase the prowess of their athletes. The history of the Games has shown an increase in the number of countries participating, the number of athletes, and the skills and abilities of competitors. In this assignment, you will look at past entries and winning countries.

**TASKS**

1. Research the net to find the number of athletes participating in each year of the modern summer Olympic Games. i.e. from 1896 to the present day. Present this information on a spreadsheet including the year, venue, name of host country, total number of athletes participating, number of men and the number of women. 2 marks
2. Using your spreadsheet facility find the mean **and** the median of
  - a) the total number of athletes
  - b) the number of males and
  - c) the number of femalesover these years. 3 marks
3. Use two *different types* of graphs to represent each of the following:
  - a) the total number of athletes for each year
  - b) the number of men for each year and
  - c) the number of women6 marks
4. Choose any two of the following track and field events: 100m, 200m, 400m, 800m, 1500m, for men or women. Research the winning time taken for each event and
  - a) present your results **for each** on a spreadsheet
  - b) produce a suitable graph **for each** to show any pattern in times. 4 marks

5. Describe in your **own words** any apparent trend or pattern for your results in question 4. Comment on any reasons why this has happened. 2 marks
6. a) Use your results from questions 4 and 5 to make a prediction of the winning time in 2008.  
b) Do you think we could use this data to predict a winning time for 2200? Explain why or why not.

3 marks

## Marking Sheet for Assignment

### Knowing

Q1. 2 marks for spreadsheet – headings, clear information, and all relevant information etc

Q2. 3marks - 1/2 mark for each of mean, median for each of total, men and women

Q3. 6 graphs 1 mark for each – deduct 1/2 for omissions such as labels or incorrect information

Q4. 4 marks – 1 for each table and 1 for each graph.

Q5. 2 marks 1/2 for describing trend and 1 1/2 for reasons. Answers could include references to better attire, better training methods, talent programs, AIS etc, better nutrition information, more people to select from - suggest 1/2 mark per suggestion???

Q6. a) 1/2 for each - prediction must be reasonable  
b) 1 – for answering if data could be used and one for explanation.