

**Main subject:**  
Mathematics

**Linked subjects:**  
1. Physical Education      2. ICT

**Year**  
8 or 9

## Winning the Triathlon

**The aim of this extension task is to:**  
Investigate Olympic triathlon results using data handling techniques



### **Context of task:**

In a triathlon, competitors take part in three disciplines: swimming, cycling and running.

The Olympic triathlon consists of a 1.5km swim, a 40km cycle, and a 10km run, completed in sequence. The first person to finish wins.

**Do you think the triathlon will be won by someone who is very strong in one event and average in the other two, or someone who is strong in all three disciplines?**

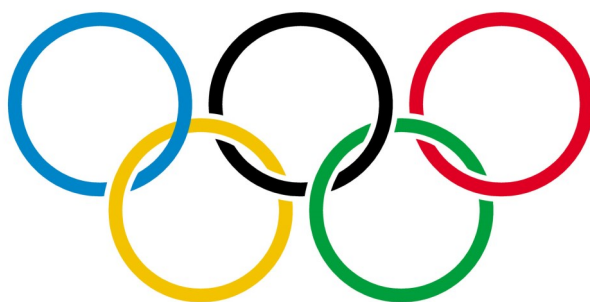
### **Questions / Issues to address:**

Look at the results from the 2008 Beijing Olympics Men's Triathlon. You can find a spreadsheet with these results in the Why Not? Maths folder on eLockers.

1. What averages could you work out for the data? Calculate averages and comment on what the results tell you about the athletes.
2. What charts or graphs could you draw to represent the data? Comment on what the charts and graphs tell you about the athletes.
3. Drawing on your averages, charts and graphs, explain your answer to the initial question: Is it better to be strong in one event and average in the other two or to be strong in all three events?

A large part of what makes this task challenging is choosing which types of chart and graph will be relevant to analyse this data. Think carefully about your choices!

(This task is based on one set by nrich at <http://nrich.maths.org>)



### **Expectation**

Produce a short report including calculations, graphs and explanations, either as a Word document or PowerPoint presentation.

### **Deadline:**

End of year

### **Note to students:**

It is not essential, but you are encouraged to extend this task into an area of your own particular interest. If you would like to do so, please discuss your ideas with your teacher.