**Task One**

**FACT**: There are roughly 1600 metres in a mile. This fact has been put into the table:

|  |  |
| --- | --- |
| **Miles** | **Kilometres** |
| 1 | 1.6 |

1a) What is the multiplier to get from miles to kilometres?

b) What is the multiplier to get from kilometres to miles? (*NOTE: Dividing by your answer to part would also do the trick – but this isn’t the multiplier!)*

c) The national speed limit on a single carriageway road is 60 mph. Use the correct multiplier to convert this to km/h. *Show your working!*

d) The circumference of the earth is about 40,000km. Use the correct multiplier to write this figure in miles. *Again, show your working.*

e) Copy and complete the table below:

|  |  |
| --- | --- |
| **Miles** | **Kilometres** |
| 1 | 1.6 |
| 60 |  |
|  | 40,000 |
| 5 |  |
| 26 |  |
|  | 100 |
|  | 12 |

f) Check your answers by multiplying down the table. For example, to get from 1 to 60 you multiply by 60, so to get from 1.6 to the ‘blank’ you should also multiply by 60.

**Task Two**

**FACT**: There are roughly 2.5 centimetres in an inch.

2a) Write down the multiplier to get from inches to centimetres

b) Work out the multiplier to get from centimetres to inches

c) Copy and complete the table below:

|  |  |
| --- | --- |
| **Inches** | **Centimetres** |
| 1 | 2.5 |
| 12 |  |
|  | 100 |
|  | 30 |
| 100 |  |

**Task Three**

You need a piece of 2mm graph paper. For each of the two questions above, plot the results on a graph (though for question 1 miss out the 40,000 figure!) Choose the axes carefully so that all the values will fit in. Write down what you notice about each graph.

**Finished so soon?**

* A closer approximation for question 1 is to say that there are 1609 metres in a mile. What difference does this make to the figure for the circumference of the earth?
* Is this important? Why?