Investigating Properties of Trigonometrical Graphs

1. Draw the graph of  for the domain and note its shape.

Sketch the graph and write down

* The amplitude of the curve
* The period of the curve

Make sure you understand what is meant by these terms.

1. You are to investigate curves of the form , where *A* can take any real value (both positive and negative). What is the effect on the original  curve when the value of *A* is altered?
2. You are to investigate curves of the form  where *B* can take any real value (both positive and negative). What is the effect on the original  curve when the value of *B* is altered?
3. You are to investigate curves of the form  where *C* can take any real value (both positive and negative). What is the effect on the original  curve when the value of *C* is altered?
4. Now you need to link these three investigations together and consider the general sine function  and show the overall effect of altering the three constants.

**Without** using the computer, sketch these graphs:

1. 
2. 
3. 

Now check your answers using the computer.

1. Repeat questions 1 to 5 for the curve . Do the results that you have obtained change because the function has changed?

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