SHEET 2 Collection of results from the whole class.
Readings from points on the unit circle so that the graphs of y=cosA and y=sinA can be plotted.

INPUT Angle A in degrees	OUTPUT 1 x coordinate cosA (short for cosine A)	OUTPUT 2 y coordinate sinA (short for sine A)
0		
10		
20		
30		
40		
50		
60		
70		
80		
90		
100		
110		
120		
130		
140		
150		
160		
170		
180		
190		
200		
210		
220		
230		
240		
250		
260		
270		
280		
290		
300		
310		
320		
330		
340		
350		
360		

To plot the graphs
On SHEET 3 the horizontal axis is marked in degrees from 0° to 360°.

This axis is labelled 'Angle A in degrees' and it is used for the independent variable or input.

The other axis is marked from -1 to +1. This axis is used for the dependent variable or output.

Plot the points (A; cosA).
Join the points with a **smooth curve.**
Label this curve f(A) = cosA.

Plot the points (A; sinA).
Join the points with a **smooth curve.**
Label this curve g(A) = sinA.

Notes for the teacher

The reason for taking 10 cm as 1 unit is so that you can take the readings easily and fairly accurately.

The graph paper reproduced here may have been re-sized in the printing. Either re-draw the 10 cm unit circle on your own graph paper or use the sheet provided and take readings from the graph paper rather than using a ruler.

If you do this activity with your learners then don't ask them to do all 72 readings. It is much better to share the work of doing the readings around the class.

KEY QUESTIONS
These are very open and general questions that you might ask your learners to set them thinking.

What do you notice?

What do you think happens if you go on to 370°, 380°, and so on and on ?

What happens for negative angles?