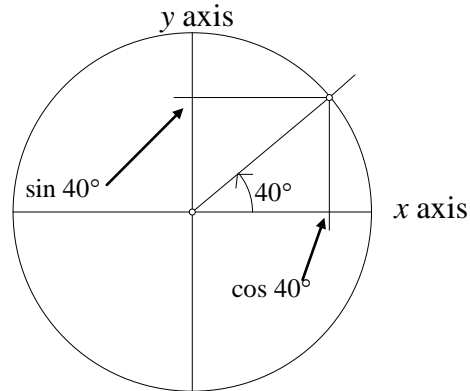# SINE AND COSINE

Trigonometry ('Trig' for short) involves angles drawn in circles of radius 1 "unit".

Consider an angle of 40° drawn in a circle as shown below.

The point where the horizontal line meets the *y* axis (about 0.64) is known as 'sine of 40°' or sin 40° for short.

The point where the horizontal line meets the *x* axis (about 0.77) is known as 'cosine of 40°' or cos 40° for short.

1. Your teacher will provide a worksheet containing a special unit circle. Use it to draw angles from 0°, 10°, 20°, 30° etc. up to 360°, and find the value of sine and cosine of each angle using definitions above.
    Record your results in an extended version of the table below.

Angle	Sine	Cosine
0°		
10°		
20°		
30°		
etc.		

2. Check your answers using a calculator.

3. Extension:
    Produce a graph of sine *x* (vertical axis) versus *x*.
    Produce a graph of cosine *x* (vertical axis) versus *x*.

The Unit Circle