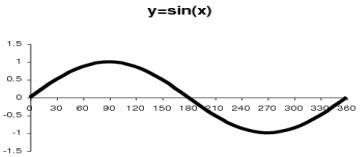
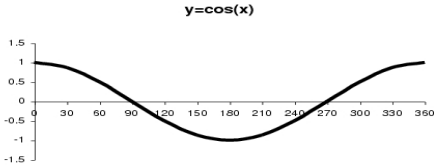
TRIGONOMETRIC GRAPHS AND EQUATIONS

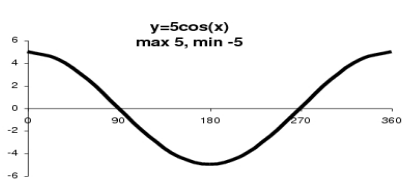
Related trigonometric graphs

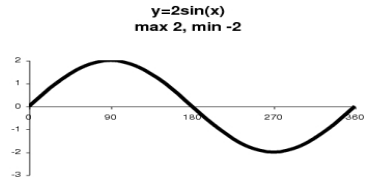
You should be familiar with the basic sine and cosine waves as you have to be able determine the equation of related graphs based on what you know about these basic sine and cosine graphs. I have reproduced them below. Both have a period of 360^0 (the number of degrees for one complete wave), a maximum value of 1 and a minimum value of -1. The tangent graph looks very different and questions on it tend not to appear in the Credit paper.





The graph of $y = a\sin(x)$ or $y = a\cos(x)$ - the maximum becomes a and the minimum $-a$. The period of the function remains unchanged.





The graph of $y = \sin(x) + k$ or $y = \cos(x) + k$ -moves the graph k units vertically upwards if k>0 and k units vertically downwards when k<0. The maximum and minimum values change accordingly but the period of the function is unchanged.