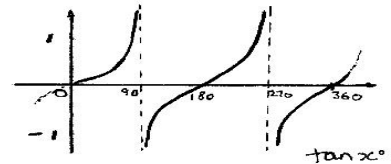
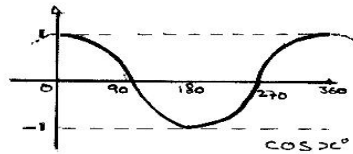
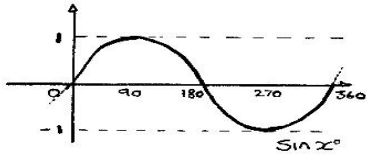


Mathematics Revision Exercises

Graphs of Trigonometric Functions



- The PERIOD of the sine graph is 360° (or 2π). Write down the period of the cosine and tangent graphs.
- Copy and complete this table for $y = \sin 2x^\circ$.

x°	0	15	30	45	60	75	90	105	120	135
$\sin 2x^\circ$			0.866		0.866					0.707

Use the table to help you draw the graph of $y = \sin 2x^\circ$ for $0^\circ \leq x \leq 360^\circ$. Clearly show where the graph cuts the x-axis.

- Copy and complete the table below for $y = 2\sin x^\circ$.

x°	0	30	60	90	120	150	180	210
$2\sin x^\circ$		1.0				1.73		

Use the table to help you draw a ROUGH graph of $y = 2\sin x^\circ$ for $0^\circ \leq x \leq 360^\circ$. Show where this graph cuts the x-axis.

- Draw a rough sketch of $y = \cos 2x^\circ$ for $0^\circ \leq x \leq 360^\circ$. Clearly show where this graph cuts the x-axis. What is the PERIOD of this graph?
- Draw a rough sketch of $y = 3\cos 2x^\circ$ for the same interval as before and show where the graph cuts the x-axis. State the MAXIMUM and MINIMUM values of the graph $y = 3\cos 2x^\circ$.
- Draw a rough sketch of $y = \tan 3x^\circ$ for $0^\circ \leq x \leq 180^\circ$. What is the PERIOD of this graph?
- What is the MAXIMUM value of each of the following?
 - $\sin x^\circ$
 - $2\cos 2x^\circ$
 - $\sin 3x^\circ$
 - $3 + \cos 2x^\circ$
 - $3 - \cos 2x^\circ$
- What is the MINIMUM value of each of the following?
 - $4\sin x^\circ$
 - $4\sin 2x^\circ$
 - $a \cos(bx^\circ)$
 - $1 - 3\cos x$
 - $1 + 3\cos x^\circ$
- Write down the most probable equation for each of the following graphs.

