Transforming Trig Graphs

We can use our knowledge of transforming graphs to transform trig graphs.

Recap

Examples

1. Sketch $y=4\sin(x)$, $0\leq x\leq 360°$
2. Sketch $y=\cos(\left(x+45°\right))$, $0\leq x\leq 360°$
3. Sketch $y=-\tan(x)$, $0\leq x\leq 360°$
4. Sketch $y=\sin(\left(\frac{x}{2}\right))$, $0\leq x\leq 360°$

Extension

*[MAT 2013 1B]* The graph of $y=\sin(x)$ is reflected first in the line $x=π$ and then in the line $y=2$. The resulting graph has equation:

1. $y=\cos(x)$
2. $y=2+\sin(x)$
3. $y=4+\sin(x)$
4. $y=2-\cos(x)$

*[MAT 2011 1D]* What fraction of the interval
$0\leq x\leq 360°$ is one (or both) of the inequalities:

$\sin(x)\geq \frac{1}{2},  \sin(2x)\geq \frac{1}{2}$ true?

*3.*

*MAT 2007 1G]* On which of the axes is a sketch of the graph

$$y=2^{-x}sin^{2}\left(x^{2}\right)$$



Ex 9F/G Pg 194 – 197.