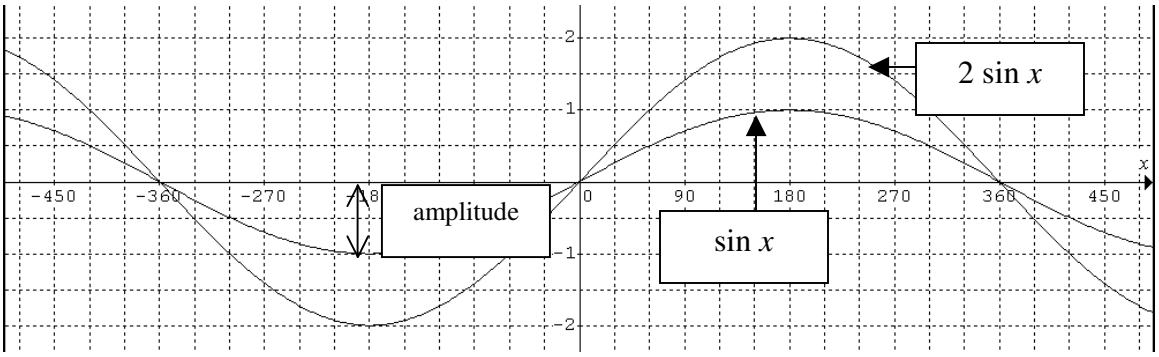
Amplitude and Period

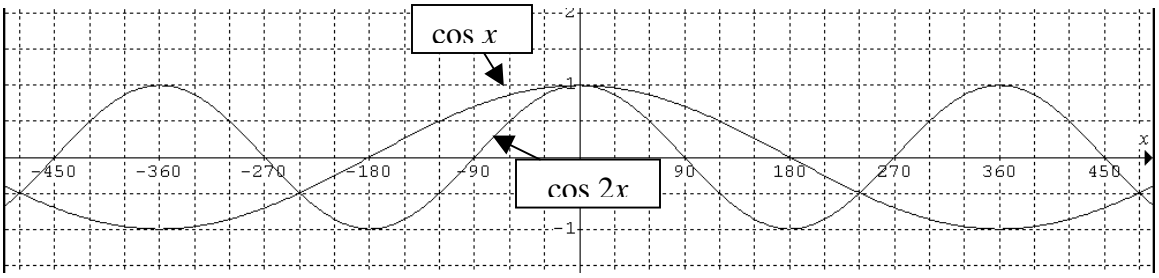
Example: Graph $y = \sin x$ and $y = 2\sin x$ on the same set of axes. (A vertical stretch!)



Definition: The **amplitude** of a sinusoidal function is half the "height" of the curve.

The amplitude of $f(x) = a\sin x$ or $f(x) = a\cos x$ is $|a|$ (the magnitude of a).

Example: Graph $y = \cos x$ and $y = \cos 2x$ on the same set of axes. (Horizontal squish!)



Definition: The period of a sinusoidal function is the distance between repetitions.

The period of $f(x) = \sin bx$ or $f(x) = \cos bx$ is $\frac{360}{b}$.

Homework: pg. 31 #1, 2, 3, 8, 11