

$$y = A \sin \mathbf{B} (x + C) + D$$

Name: _____

Precalculus

Sec 5.4 - Graphs of Sin and Cos

Period

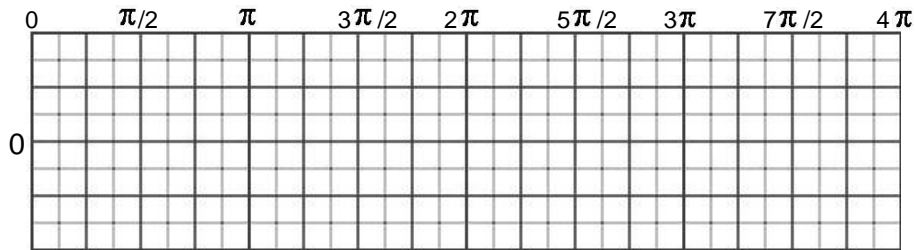
B controls the period of the function.

The period is 2π *only if* $B = 1$.

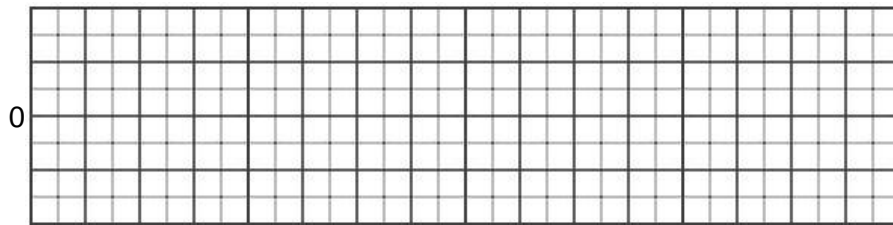
The period, $P = \frac{2\pi}{B}$

Find the amplitude, period, and vertical displacement of these functions:

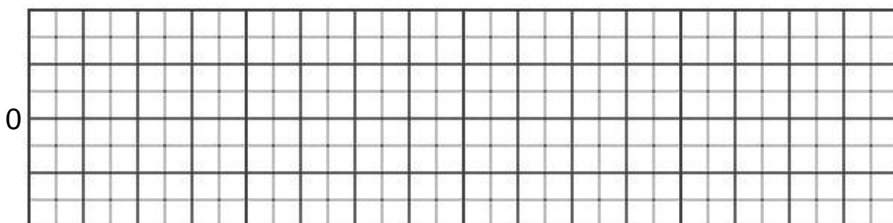
	Amplitude	Period	Vertical D
1) $y = 2\sin 4t + 1$	_____	_____	_____
2) $y = -3\cos 2t$	_____	_____	_____
3) $y = \frac{\sin 3t - 1}{4}$	_____	_____	_____
4) $y = \frac{2\sin 3t - 1}{5}$	_____	_____	_____
5) $y = \frac{\sin t - 1}{3}$	_____	_____	_____



6) Graph problem 1 for 3 periods

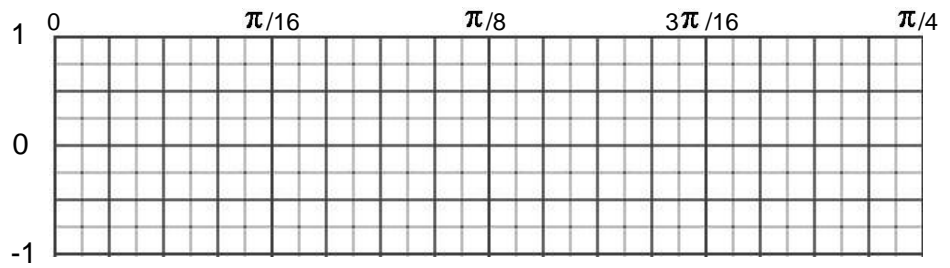


7) Graph problem 2 for 4 periods

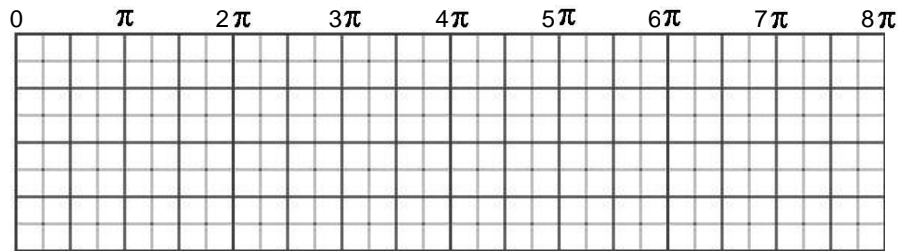


8) Graph problem 3 for 2 periods

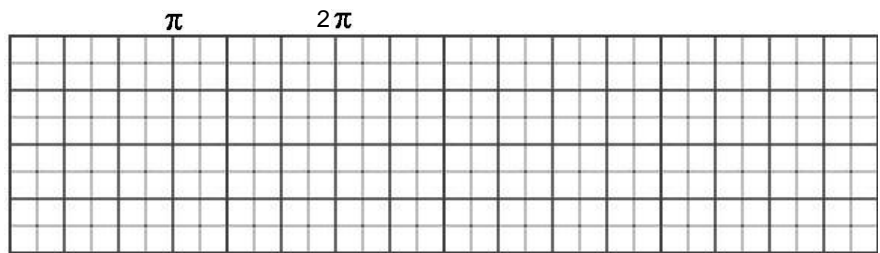
9) $y = \cos 8x$



10) $y = 2\cos \frac{x}{8}$



11) $y = -2\sin(3x)$



12) $y = \cos(x) + 1$

