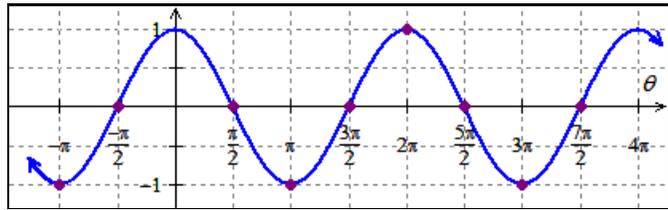
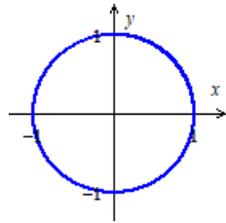
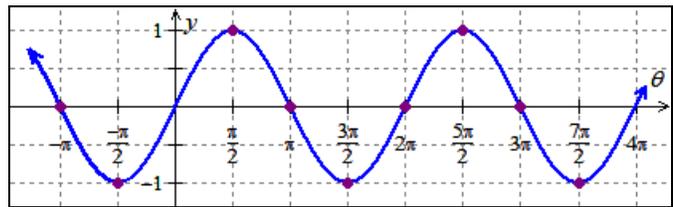
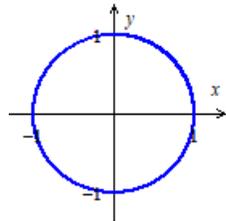


Class Discussion: Graphing Sinusoidal Functions

EXAMPLE: Determine which graph is $y = \sin(\theta)$ and which is $y = \cos(\theta)$.



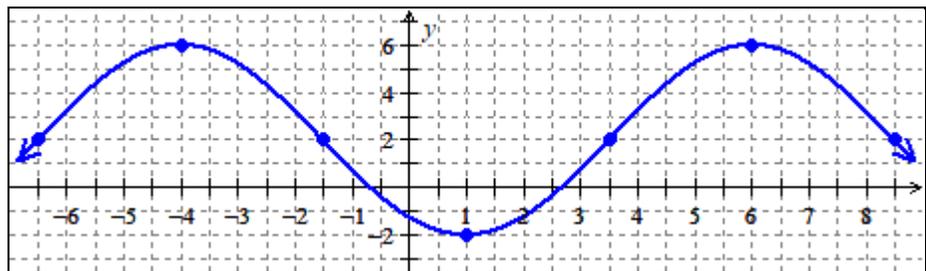
A graph of _____.



A graph of _____.

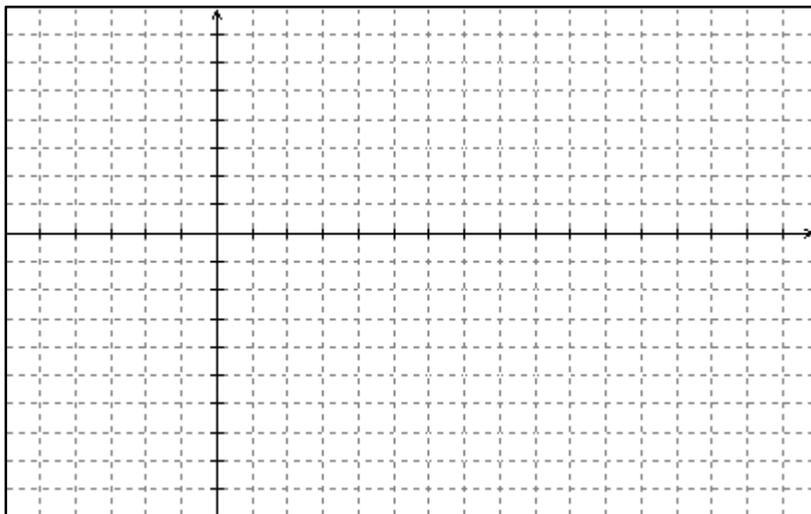
(Let's start with examples on the next page, and then come back to the example below.)

EXAMPLE: Find two different algebraic rules for the function $y = Z(t)$ graphed below. One of your rules should involve sine and the other should involve cosine.



The graph of $y = Z(t)$.

EXAMPLE (a): Draw a graph of the function $M(x) = 6\sin\left(2x - \frac{\pi}{2}\right) - 3$ by first plotting the points where the graph will intersect the midline and the points where the graph will reach maximum/minimum values, and then connect these points with an appropriately curved sinusoidal wave.



(b): Draw a graph of the function $N(x) = 6\cos\left(2x - \frac{\pi}{2}\right) - 3$.

(Note that the only difference between this function and the function in **(a)** is that it involves cosine instead of sine.)

