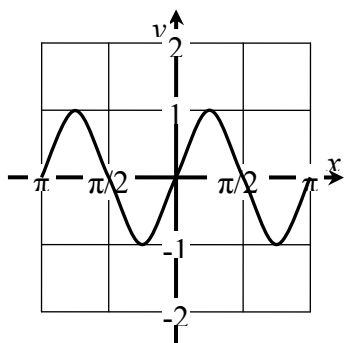
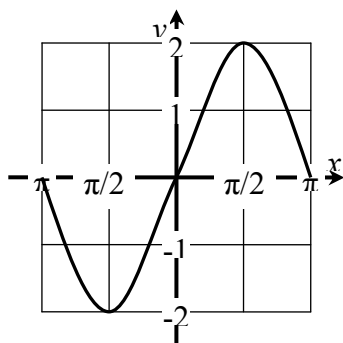


(6) (6 points) Sketch the graph of the function  $y = -5 + 3 \sin\left(x - \frac{\pi}{2}\right)$  by using transformations of graphs. You should draw four graphs: an original graph, followed by three transformations. Be sure to label key points.

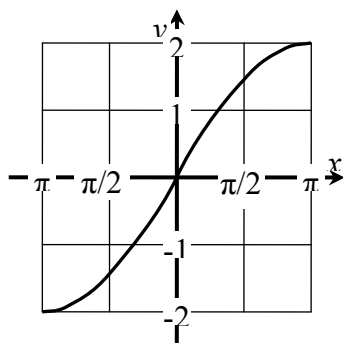
(7) (4 points) Match the equation with the graph.



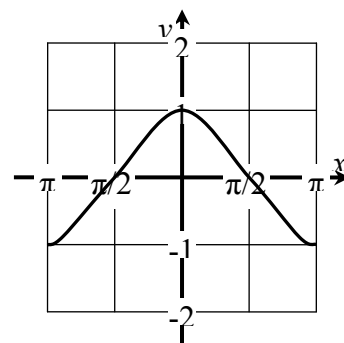
graph 1



graph 2



graph 3



graph 4

(a)  $y = 2 \sin(x)$  corresponds to graph \_\_\_\_\_.

(b)  $y = \sin(2x)$  corresponds to graph \_\_\_\_\_.

(c)  $y = \sin\left(x + \frac{\pi}{2}\right)$  corresponds to graph \_\_\_\_\_.

(d)  $y = 2 \sin\left(\frac{x}{2}\right)$  corresponds to graph \_\_\_\_\_.

