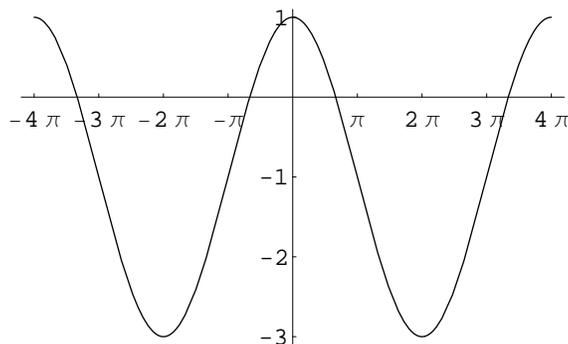


Math Xb—Spring 2004

Graphs of Sine, Cosine, and Tangent

1. Choose the function that best fits the following graph.



(a) $\frac{1}{2} \cos(2x) - 1$

(c) $\frac{1}{2} \cos\left(\frac{1}{2}x\right) - 1$

(b) $2 \cos\left(\frac{1}{2}x\right) - 1$

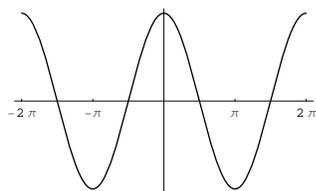
(d) $2 \cos(2x) - 1$

(e) None of the above.

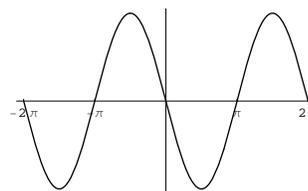
2. Choose the graph that best fits the function

$$f(x) = -\cos\left(x - \frac{\pi}{2}\right).$$

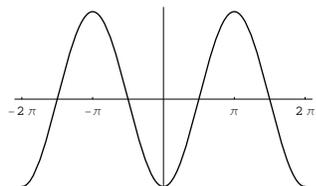
(a)



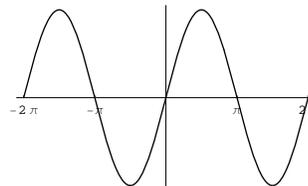
(c)



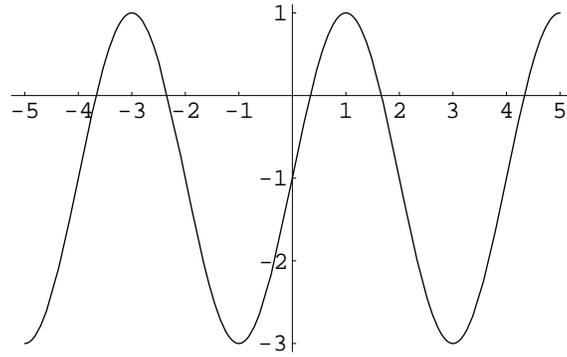
(b)



(d)



3. Choose the function that best fits the following graph.



(a) $2 \sin\left(\frac{2\pi}{x}\right) - 1$

(b) $2 \sin(2\pi x) - 1$

(c) $2 \sin\left(\frac{2}{\pi}x\right) - 1$

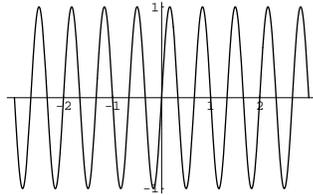
(d) $2 \sin\left(\frac{\pi}{2}x\right) - 1$

(e) None of the above.

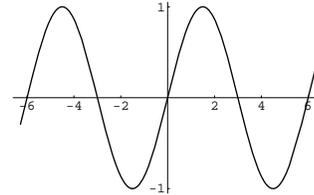
4. Choose the graph that best fits the function

$$f(x) = \sin\left(\frac{\pi}{3}x\right).$$

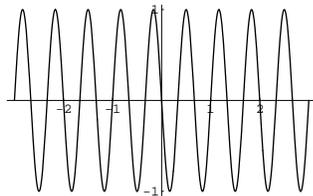
(a)



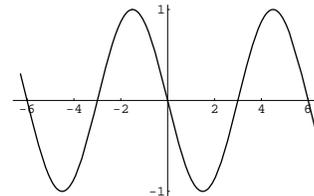
(c)



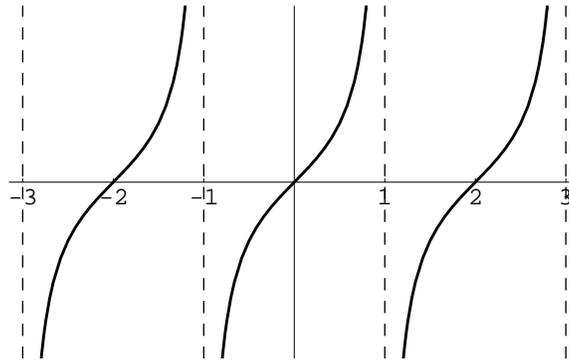
(b)



(d)



5. Choose the function that best fits the following graph.



(a) $\tan\left(\frac{\pi}{2}x\right)$

(c) $\tan\left(\frac{\pi}{4}x\right)$

(b) $\tan\left(\frac{2}{\pi}x\right)$

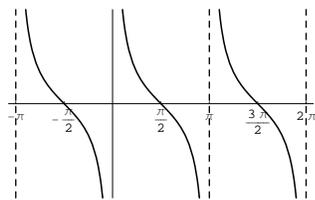
(d) $\tan(2\pi x)$

(e) None of the above.

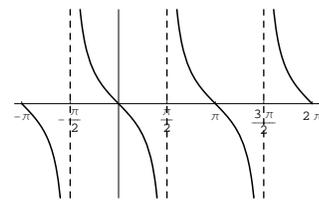
6. Choose the graph that best fits the function

$$f(x) = \tan\left(x - \frac{\pi}{2}\right).$$

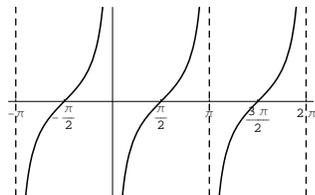
(a)



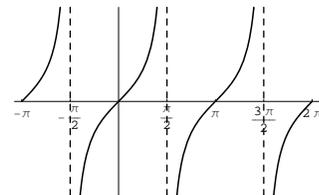
(c)



(b)



(d)



Answers

1. b

2. c

3. d

4. c

5. a

6. b