Math 1613 - Trigonometry

Exam #4 - 2010.10.28

Name: _____

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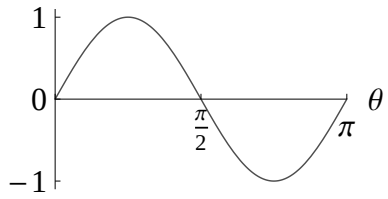
1. Match the following functions to their corresponding graphs.

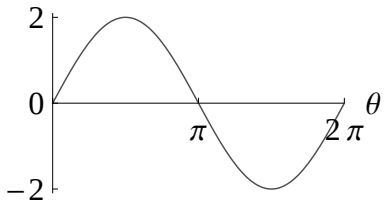
(1) $2\cos\left(2\theta - \frac{\pi}{3}\right)$ (2) $1 + \cos\left(\frac{\theta}{2}\right)$ (3) $-2\sin\left(2\theta + \frac{\pi}{3}\right)$ (4) $1 - \cos(\theta)$ (5) $2\sin(\theta)$

(6) $\sin(2\theta)$ (7) $-2\cos\left(2\theta + \frac{\pi}{3}\right)$ (8) $2\sin\left(2\theta + \frac{\pi}{3}\right)$ (9) $1 - \sin(\theta)$

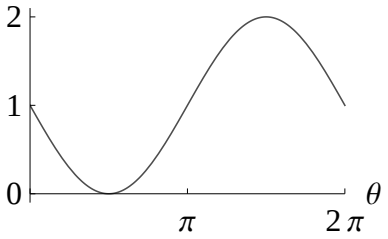
(A)



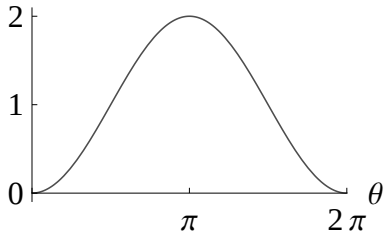
(B)



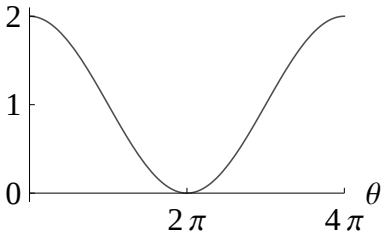
(C)



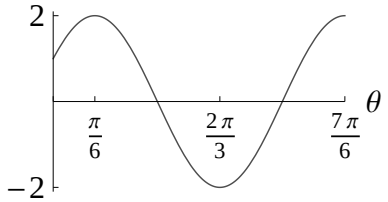
(D)



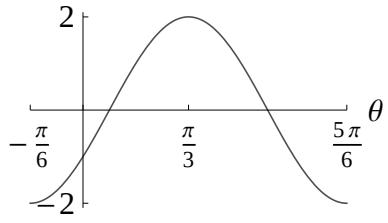
(E)



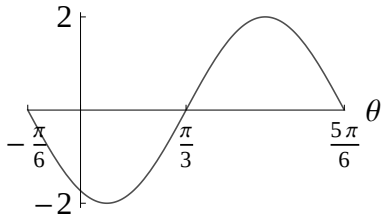
(F)



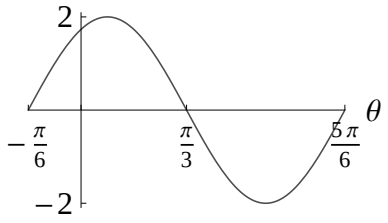
(G)



(H)



(I)

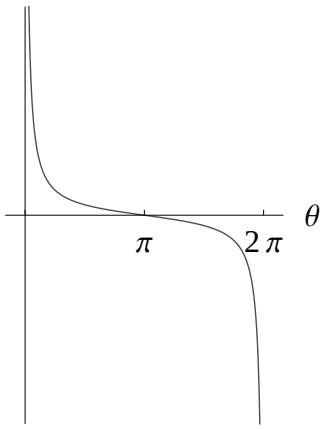


2. Match the following functions to their corresponding graphs.

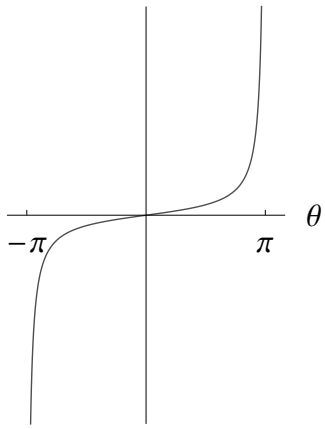
(1) $1 + \cot(2\theta)$ (2) $1 - \tan(2\theta)$ (3) $\tan\left(\frac{\theta}{2}\right)$

(4) $-1 + \tan(2\theta)$ (5) $\cot\left(\frac{\theta}{2}\right)$ (6) $\tan\left(\theta - \frac{\pi}{6}\right)$

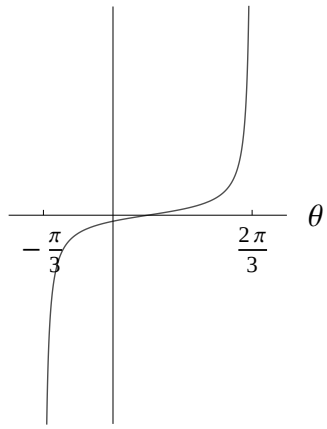
(A)



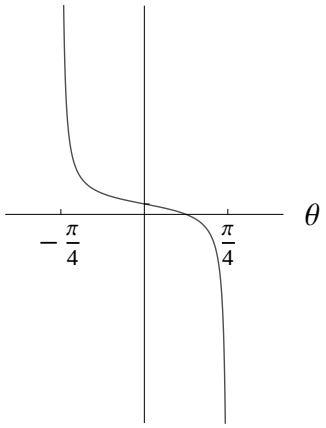
(B)



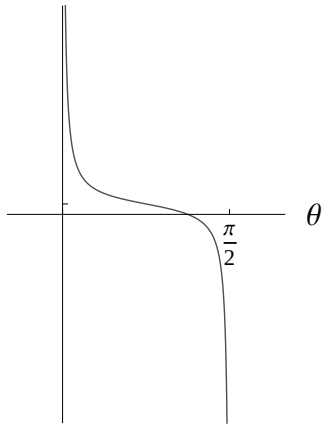
(C)



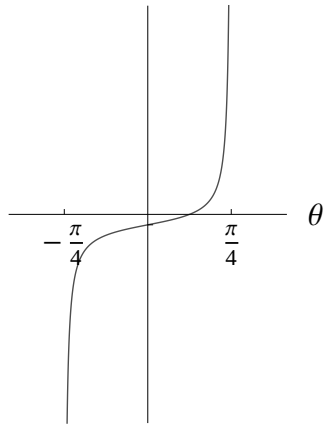
(D)



(E)



(F)



3. Graph the function $y = 2 - 3\cos\left(\frac{2}{3}x + \frac{\pi}{6}\right)$. Be sure to include all important information on your graph.

4. Graph the function $y = 2 - 3\sec\left(\frac{2}{3}x + \frac{\pi}{6}\right)$. Be sure to include all important information on your graph.

5. Graph the function $y = 5 + \frac{1}{3}\sin\left(\frac{\pi}{3}x + \frac{\pi}{6}\right)$. Be sure to include all important information on your graph.

6. Graph the function $y = 5 + \frac{1}{3}\csc\left(\frac{\pi}{3}x + \frac{\pi}{6}\right)$. Be sure to include all important information on your graph.

7. Graph the function $y = \frac{1}{3}\tan\left(\frac{\pi}{6}x\right)$. Be sure to include all important information on your graph.

8. Graph the function $y = \frac{1}{3}\cot\left(\frac{2}{3}x - \frac{\pi}{12}\right)$. Be sure to include all important information on your graph.