

PreCalculus Test 2

Name: \_\_\_\_\_

Date: \_\_\_\_\_

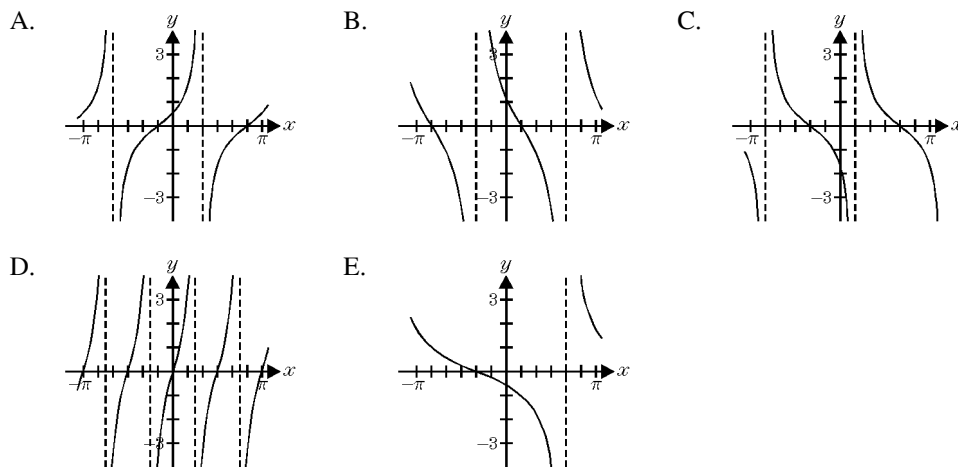
1. What is the period of the function  $f(x) = 3 \sin \frac{2}{3}x - 2$ ? 1. \_\_\_\_\_

- A.  $\frac{2}{3}$       B. 2      C.  $\pi$       D.  $2\pi$       E.  $3\pi$

2. Determine the the period of the function  $y = 2 \tan 5x$ . 2. \_\_\_\_\_

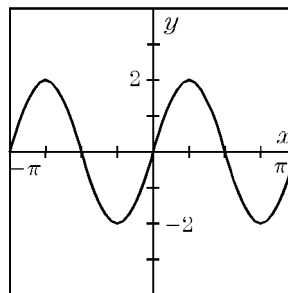
- A.  $\frac{\pi}{5}$       B.  $\frac{2\pi}{5}$       C.  $2\pi$       D.  $5\pi$       E.  $10\pi$

3. Which of the following is the graph of  $f(x) = \cot(x - \frac{\pi}{6})$ ? 3. \_\_\_\_\_



4. Which of the following equations describes the graph? 4. \_\_\_\_\_

- A.  $y = 2 \sin \theta$       B.  $y = \frac{1}{2} \sin \theta$   
 C.  $y = 2 \cos(2\theta - \frac{\pi}{4})$       D.  $y = 2 \cos(2\theta - \frac{\pi}{2})$   
 E.  $y = 2 \cos 2\theta$



5. As  $x$  increases from  $\pi$  to  $2\pi$  radians,  $\sin x$ : 5. \_\_\_\_\_

- A. increases throughout the interval      B. decreases throughout the interval  
 C. increases, then decreases      D. decreases, then increases