

The University of Toledo

**TRIGONOMETRY PRACTICE TEST**

This test consists of 20 questions. While you may take as much as you wish, it is

A)  $\frac{3}{3}$       B)  $\frac{3}{2}$       C)  $\frac{2}{2}$       D)  $\frac{1}{2}$       E) none of the above

2. What is the radian measure of the angle whose degree measure are  $240^\circ$  ?

A)  $\frac{4}{3}\pi$       B)  $\frac{11}{6}\pi$       C)  $\frac{11}{12}\pi$       D)  $\frac{\pi}{6}$       E)  $\frac{5}{3}\pi$

3. If  $\sin \theta = \frac{3}{5}$  and  $\cos \theta = \frac{4}{5}$ , then  $\theta$  lies in

A) quadrant I      B) quadrant II

$\frac{\pi}{2}$

5. If the coordinates (x, y) of the point p in the figure are (2,2), then  $\tan(a)=$

- A) 1/3  
B) 3/4  
C) 3/10  
D) 1/10  
E) 1

6. The graph of the function  $y=\tan(x-\pi)$  has asymptotes at

- A)  $x=0$  and  $x=\pi$       B)  $x=\pi$  and  $x=2\pi$   
C)  $x=\frac{\pi}{2}$  and  $x=$

(A)

(B)

(C)

(D)

(E)

8. The exact value of  $\tan 45^\circ$  is

A)  $-1$       B)  $1$       C)  $\frac{1}{2}\sqrt{2}$       D)  $-\frac{1}{2}\sqrt{2}$       E)  $\frac{3\pi}{4}$

9. The exact value of  $\sin^2\left(\frac{\pi}{4}\right) + \frac{1}{2}$

14. Which of the following is the graph of  $y=\sin 4x$ ?

(A)

(B)

(C)

(D)

(E)

15. For which angles  $\theta$ , with  $0^\circ \leq \theta \leq 180^\circ$ , is  $\sin 2\theta = -1$ ?

A)  $30^\circ$  and  $150^\circ$    B)  $60^\circ$  and  $120^\circ$    C)  $135^\circ$    D)  $0^\circ$  and  $120^\circ$    E) none

16. If  $2\sin \theta = \sqrt{3}$



**Solution:**

1. D)
2. A)
3. A)
4. A)
5. E)
6. C)
7. B)
8. B)
9. B)
10. A)
11. D)
12. D)
13. D)
14. D)
15. C)
16. B)
17. A)
18. E)
19. A)
20. C)