

Degrees to radian

$$30^\circ * \frac{\pi}{180}$$

Radian to Degree

$$\frac{\pi}{6} * \frac{180}{\pi}$$

Name \_\_\_\_\_

Date \_\_\_\_\_

Advanced Algebra

Unit 10 Advanced Trig Converting Degrees to radian measure and radian to Degrees

Assignment #8

**Convert each degree measure to radians. Leave answers in terms of  $\pi$**

1) 315

b) 225

c) 15

d) -45

2) -90

b) 135

c) -180

d) -225

3) -120

b) -240

c) 300

d) 360

4) 210

b) -135

c) -210

d) -315

**Convert Each radian measure to degrees**

5)  $\frac{-\pi}{2}$

b)  $\frac{4\pi}{3}$

c)  $\frac{-3\pi}{4}$

d)  $\frac{-\pi}{6}$

6)  $\frac{-5\pi}{6}$

B)  $-2\pi$

c)  $\frac{5\pi}{4}$

d)  $\frac{-\pi}{3}$

7)  $\pi$

b)  $\frac{-3\pi}{2}$

c)  $\frac{2\pi}{3}$

d)  $\frac{7\pi}{6}$

**I know the exact Trig Values:**

Degrees	Sin	Cos	Tan
0	0	1	
30	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	
45	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{2}}{2}$	
60	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	
90	1	0	

1)  $\cos 45$

2)  $\cos 135$

3)  $\sin 210$

4)  $\cos 150$

5)  $\sin (-45)$

6)  $\cos 315$

7)  $\cos 225$

8)  $\sin(-225)$

9)  $\sin 150$

10)  $\cos (-240)$

11)  $\sin (-135)$

12)  $\cos (-30)$

13)  $\cos 210$

14)  $\cos (90)$

15)  $\sin (-120)$

16)  $\sin(-315)$

17)  $\cos \frac{\pi}{6}$

18)  $\sin \left(\frac{\pi}{3}\right)$

19)  $\cos \left(\frac{2\pi}{3}\right)$

20)  $\sin\left(\frac{3\pi}{4}\right)$

21)  $\cos \left(\frac{\pi}{4}\right)$

22)  $\sin \left(\frac{-\pi}{4}\right)$

23)  $\sin \left(\frac{5\pi}{3}\right)$

24)  $\cos \left(\frac{-7\pi}{6}\right)$

25)  $\cos (2\pi)$

26)  $\sin \left(\frac{11\pi}{6}\right)$

27)  $\cos \left(\frac{-5\pi}{6}\right)$

28)  $\cos \frac{-\pi}{6}$