

## Trigna-who?

Date \_\_\_\_\_

Convert each degree measure into radians and each radian measure into degrees. Do your best without a calculator. Check when you feel you are done!

1)  $-260^\circ$

2)  $-485^\circ$

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

4)  $210^\circ$

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

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

Find the exact value of each trigonometric function.

7)  $\cos -\frac{11\pi}{3}$

8)  $\sec -\frac{29\pi}{6}$

$$9) \tan -\frac{10\pi}{3}$$

$$10) \cot \frac{\pi}{2}$$

$$11) \csc 3\pi$$

$$12) \cot \frac{\pi}{4}$$

$$13) \sin -\frac{11\pi}{6}$$

$$14) \csc -\frac{11\pi}{4}$$

$$15) \sec \frac{7\pi}{3}$$

$$16) \cos -\frac{21\pi}{4}$$

$$17) \sec \frac{25\pi}{6}$$

$$18) \cot -\frac{23\pi}{4}$$

$$19) \cot \frac{11\pi}{2}$$

$$20) \tan -\frac{\pi}{4}$$

$$21) \tan -\frac{2\pi}{3}$$

$$22) \csc 0$$

**Solve each equation for  $0 \leq \theta < 2\pi$ .**

$$23) \cos \theta = -\frac{\sqrt{2}}{2}$$

$$24) \sin \theta = \frac{\sqrt{3}}{2}$$

$$25) 1 = \sin \theta$$

$$26) \frac{\sqrt{2}}{2} = \cos \theta$$

$$27) \cos \theta = 0$$

$$28) \cos \theta = \frac{\sqrt{3}}{2}$$

## Answers to Trigna-who?

1)  $-\frac{13\pi}{9}$

5)  $240^\circ$

9)  $-\sqrt{3}$

13)  $\frac{1}{2}$

17)  $\frac{2\sqrt{3}}{3}$

21)  $\sqrt{3}$

25)  $\left\{\frac{\pi}{2}\right\}$

2)  $-\frac{97\pi}{36}$

6)  $225^\circ$

10)  $0$

14)  $-\sqrt{2}$

18)  $1$

22) Undefined

26)  $\left\{\frac{\pi}{4}, \frac{7\pi}{4}\right\}$

3)  $-150^\circ$

7)  $\frac{1}{2}$

11) Undefined

15)  $2$

19)  $0$

23)  $\left\{\frac{3\pi}{4}, \frac{5\pi}{4}\right\}$

27)  $\left\{\frac{\pi}{2}, \frac{3\pi}{2}\right\}$

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

8)  $-\frac{2\sqrt{3}}{3}$

12)  $1$

16)  $-\frac{\sqrt{2}}{2}$

20)  $-1$

24)  $\left\{\frac{\pi}{3}, \frac{2\pi}{3}\right\}$

28)  $\left\{\frac{\pi}{6}, \frac{11\pi}{6}\right\}$