

Name: Key

August 30, 2017

Converting Between Degrees and Radians Assignment

Part I Convert to radians in two forms: as a multiple of π and as a decimal approximation rounded to two decimal places.

1) 45°

$$\frac{\pi}{4} \approx .79 \text{ rad}$$

2) 60°

$$\frac{\pi}{3} \approx 1.05 \text{ rad}$$

3) $17^\circ \left(\frac{\pi}{180}\right)$

$$\frac{17\pi}{180} \approx .30 \text{ rad}$$

4) $100^\circ \left(\frac{\pi}{180}\right)$

$$\frac{5\pi}{9} \approx 1.75 \text{ rad}$$

5) 120°

$$\frac{2\pi}{3} \approx 2.09 \text{ rad}$$

6) 150°

$$\frac{5\pi}{6} \approx 2.62 \text{ rad}$$

7) -270°

$$\frac{-3\pi}{2} \approx -4.71 \text{ rad}$$

8) $\pi^\circ \left(\frac{\pi}{180}\right)$

$$\frac{\pi^2}{180} \approx .05 \text{ rad}$$

Part II Convert to degrees. Approximate to two decimal places.

9) $\pi \text{ rad}$

$$180^\circ$$

10) $5 \text{ rad} \left(\frac{180}{\pi}\right)$

$$\approx 286.48^\circ$$

11) $\frac{3}{2} \pi \text{ rad}$

$$270^\circ$$

12) $2 \text{ rad} \left(\frac{180}{\pi}\right)$

$$\approx 114.59^\circ$$

13) $5\pi \text{ rad} \left(\frac{180}{\pi}\right)$

$$900^\circ$$

14) $-\frac{\pi}{4} \text{ rad}$

$$-45^\circ$$

15) $\frac{7}{2} \pi \text{ rad} \left(\frac{180}{\pi}\right)$

$$630^\circ$$

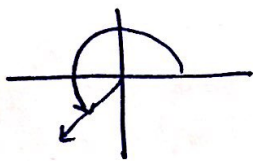
16) $45 \text{ rad} \left(\frac{180}{\pi}\right)$

$$2578.31^\circ$$

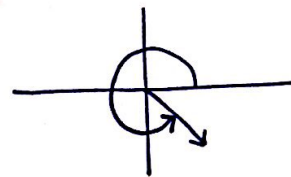
Name the Quadrant!

State the quadrant in which each angle's terminal side resides.

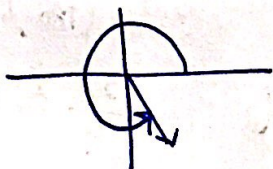
IV 1. $\theta = \frac{5\pi}{4}$



IV 8. $\theta = \frac{7\pi}{4}$



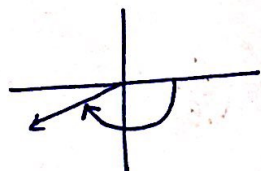
IV 2. $\theta = \frac{5\pi}{3}$



II 9. $\theta = \frac{2\pi}{3}$



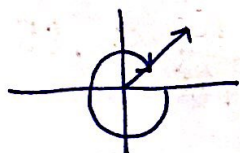
III 3. $\theta = -\frac{5\pi}{6}$



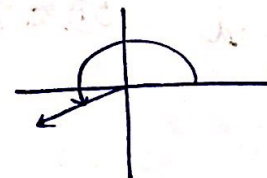
I 10. $\theta = \frac{\pi}{4}$



I 4. $\theta = -\frac{7\pi}{4}$



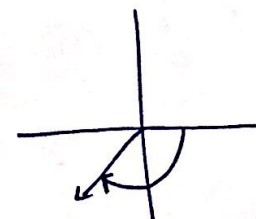
III 11. $\theta = \frac{7\pi}{6}$



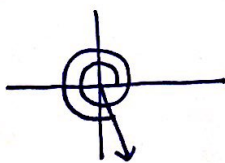
I 5. $\theta = \frac{\pi}{6}$



III 12. $\theta = -\frac{3\pi}{4}$



IV 6. $\theta = \frac{11\pi}{3} - \frac{6\pi}{3} = \frac{5\pi}{3}$



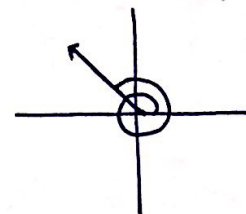
IV 13. $\theta = -\frac{\pi}{3}$



II 7. $\theta = \frac{5\pi}{6}$



II 14. $\theta = \frac{11\pi}{4} - \frac{8\pi}{4} = \frac{3\pi}{4}$



III 15. $\theta = \frac{4\pi}{3}$

