

Radian Measure Worksheet
Module 3, Unit 6, Lesson 3

Convert each angle in degrees to radians. Show all necessary work.

1. 45°

2. 150°

3. -300°

4. 225°

5. -270°

6. 120°

Convert each angle in radians to degrees. Show all necessary work.

7. $\frac{\pi}{2}$

8. $-\frac{2\pi}{3}$

9. $\frac{3\pi}{4}$

10. $\frac{11\pi}{6}$

11. $\frac{13\pi}{3}$

12. $\frac{7\pi}{6}$

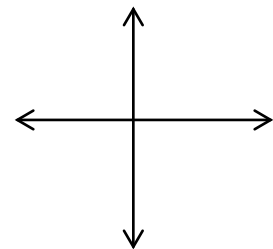
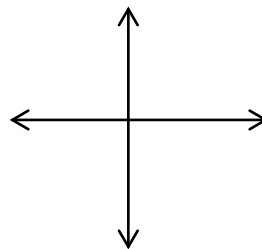
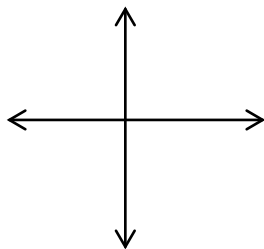
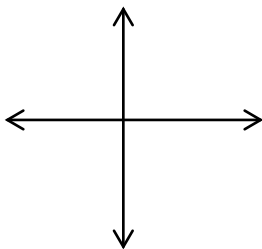
Draw and label each angle in standard position.

13. $-\frac{5\pi}{4}$

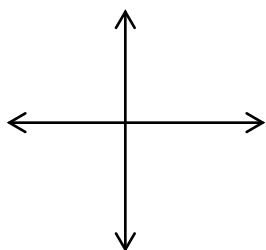
14. $\frac{4\pi}{3}$

15. $-\frac{5\pi}{6}$

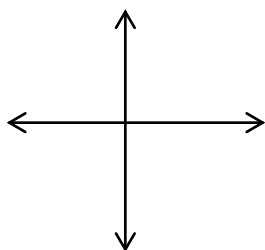
16. $-\frac{3\pi}{2}$



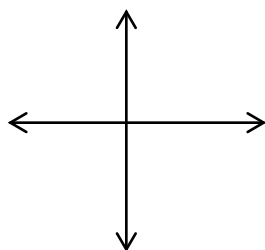
17. $\frac{3\pi}{4}$



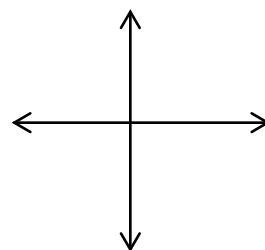
18. $\frac{3\pi}{2}$



19. $\frac{14\pi}{3}$



20. $\frac{19\pi}{6}$



Find a positive angle less than 2π that is coterminal with the given angles. Show all necessary work.

21. $\frac{25\pi}{6}$

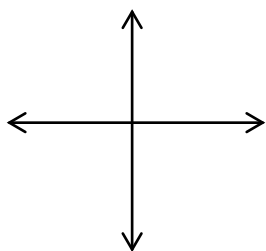
22. $-\frac{2\pi}{3}$

23. $\frac{21\pi}{4}$

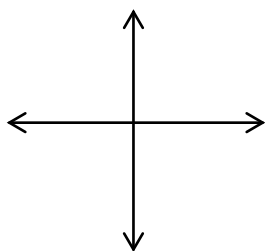
24. $\frac{19\pi}{3}$

Find the reference angle, θ' , for each of the following. Sketch the angle and the reference angle.

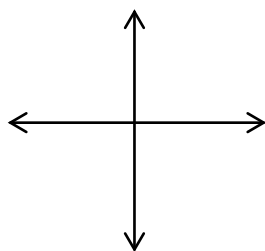
25. $\frac{5\pi}{6}$



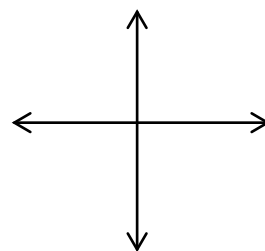
26. $\frac{7\pi}{4}$



27. $-\frac{2\pi^\circ}{3}$



28. $-\frac{\pi}{4}$



Answers

1. $\frac{\pi}{4}$

2. $\frac{5\pi}{6}$

3. $-\frac{5\pi}{3}$

4. $\frac{5\pi}{4}$

5. $-\frac{3\pi}{2}$

6. $\frac{2\pi}{3}$

7. 90°

8. -120°

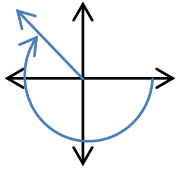
9. 135°

10. 330°

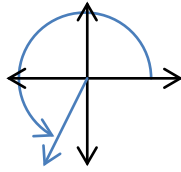
11. 780°

12. 210°

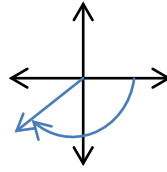
13. $-\frac{5\pi}{4}$



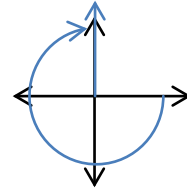
14. $\frac{4\pi}{3}$



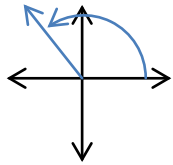
15. $-\frac{5\pi}{6}$



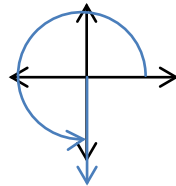
16. $-\frac{3\pi}{2}$



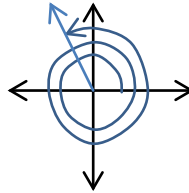
17. $\frac{3\pi}{4}$



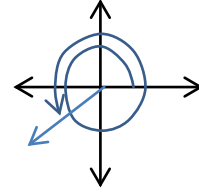
18. $\frac{3\pi}{2}$



19. $\frac{14\pi}{3}$



20. $\frac{19\pi}{6}$



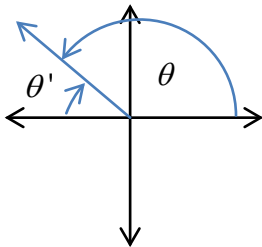
21. $\frac{13\pi}{6}$

22. $\frac{4\pi}{3}$

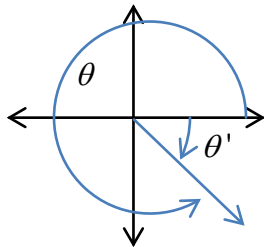
23. $\frac{5\pi}{4}$

24. $\frac{\pi}{3}$

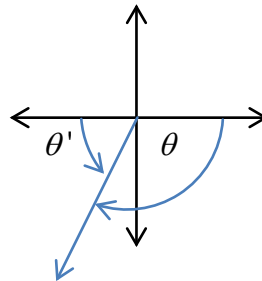
25. $\theta = \frac{5\pi}{6}$
 $\theta' = \frac{\pi}{6}$



26. $\theta = \frac{7\pi}{4}$
 $\theta' = \frac{\pi}{4}$



27. $\theta = -\frac{2\pi}{3}$
 $\theta' = \frac{\pi}{3}$



28. $\theta = -\frac{\pi}{4}$
 $\theta' = \frac{\pi}{4}$

