

Practice 13-3

Radian Measure

Write each measure in radians. Express your answer in terms of π .

- | | | | | |
|----------------|-----------------|-----------------|-----------------|-----------------|
| 1. 45° | 2. 90° | 3. 30° | 4. 150° | 5. 180° |
| 6. 240° | 7. 270° | 8. 300° | 9. 360° | 10. 40° |
| 11. 80° | 12. 110° | 13. 160° | 14. 200° | 15. 220° |

Write each measure in degrees. Round your answer to the nearest degree, if necessary.

- | | | | | |
|----------------------|----------------------|-----------------------|----------------------|----------------------|
| 16. π | 17. 2π | 18. $\frac{5\pi}{6}$ | 19. $\frac{3\pi}{4}$ | 20. $\frac{3\pi}{2}$ |
| 21. $\frac{\pi}{6}$ | 22. $\frac{7\pi}{6}$ | 23. $\frac{11\pi}{6}$ | 24. $\frac{\pi}{3}$ | 25. $\frac{4\pi}{3}$ |
| 26. $\frac{5\pi}{4}$ | 27. $\frac{7\pi}{4}$ | 28. $\frac{2\pi}{3}$ | 29. $\frac{\pi}{9}$ | 30. $\frac{2\pi}{9}$ |

The measure θ of an angle in standard position is given. Find the exact values of $\cos \theta$ and $\sin \theta$ for each angle measure.

- | | | | |
|------------------------------|------------------------------|-------------------------------|------------------------------|
| 31. $\frac{\pi}{6}$ radians | 32. $\frac{\pi}{3}$ radians | 33. $-\frac{3\pi}{4}$ radians | 34. $\frac{7\pi}{4}$ radians |
| 35. $\frac{5\pi}{6}$ radians | 36. $\frac{4\pi}{3}$ radians | 37. $\frac{11\pi}{6}$ radians | 38. $\frac{2\pi}{3}$ radians |