

LESSON

Practice B**13-3** *The Unit Circle*

Convert each measure from degrees to radians or from radians to degrees.

1. $\frac{5\pi}{12}$

2. 215°

3. $-\frac{29\pi}{18}$

4. -180°

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

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

7. 400°

8. $\frac{3\pi}{10}$

9. 35°

Use the unit circle to find the exact value of each trigonometric function.

10. $\cos \frac{2\pi}{3}$

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

12. $\tan \frac{5\pi}{6}$

13. $\sin 315^\circ$

14. $\cos 225^\circ$

15. $\tan 60^\circ$

Use a reference angle to find the exact value of the sine, cosine, and tangent of each angle.

16. 150°

17. -225°

18. -300°

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

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

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

Solve.

22. San Antonio, Texas, is located about 30° north of the equator. If Earth's radius is about 3959 miles, approximately how many miles is San Antonio from the equator?
