Pre-Calculus: Lesson 4.2 Day 2 Trigonometric Functions: Unit Circle p.270, #13-21 odd, #23-29 odd, 33, 34, 35 and 47-50 ALL.

 Please complete the assignment using the "tri-fold" method (You may use www.calcchat.com to check your work):

Finding a Point on the Unit Circle   In Exercises 13–22, find the point (x, y) on the unit circle that corresponds to the real number t.

13. $t = \dfrac{\pi}{4}$

14. $t = \dfrac{\pi}{3}$

15. $t = \dfrac{7\pi}{6}$

16. $t = \dfrac{5\pi}{4}$

17. $t = \dfrac{2\pi}{3}$

18. $t = \dfrac{5\pi}{3}$

19. $t = \dfrac{3\pi}{2}$

20. $t = \pi$

21. $t = -\dfrac{7\pi}{4}$

22. $t = -\dfrac{4\pi}{3}$

Evaluating Sine, Cosine, and Tangent   In Exercises 23–32, evaluate (if possible) the sine, cosine, and tangent of the real number.

23. $t = \dfrac{\pi}{4}$

24. $t = \dfrac{\pi}{3}$

25. $t = -\dfrac{7\pi}{4}$

26. $t = -\dfrac{5\pi}{4}$

27. $t = \dfrac{2\pi}{3}$

28. $t = \dfrac{5\pi}{3}$

29. $t = -\dfrac{5\pi}{3}$

30. $t = \dfrac{11\pi}{6}$

31. $t = -\dfrac{\pi}{6}$

32. $t = -\dfrac{\pi}{4}$

Evaluating Trigonometric Functions In Exercises 33–38, evaluate (if possible) the six trigonometric functions of the real number.

33. $t = 3\pi/4$ 34. $t = 5\pi/6$

35. $t = \pi/2$ 36. $t = 3\pi/2$

37. $t = -4\pi/3$ 38. $t = 7\pi/4$

Using the Value of a Trigonometric Function In Exercises 47–52, use the value of the trigonometric function to evaluate the indicated functions.

47. $\sin t = \frac{1}{3}$

    (a) $\sin(-t)$

    (b) $\csc(-t)$

48. $\cos t = -\frac{3}{4}$

    (a) $\cos(-t)$

    (b) $\sec(-t)$

49. $\cos(-t) = -\frac{1}{5}$

    (a) $\cos t$

    (b) $\sec(-t)$

50. $\sin(-t) = \frac{3}{8}$

    (a) $\sin t$

    (b) $\csc t$

51. $\sin t = \frac{4}{5}$

    (a) $\sin(\pi - t)$

    (b) $\sin(t + \pi)$

52. $\cos t = \frac{4}{5}$

    (a) $\cos(\pi - t)$

    (b) $\cos(t + \pi)$