Trigonometry Section 3.6

In Exercises 1 to 22, solve each equation for exact solutions in the interval $0 \leq x \leq 2\pi$

2. $2sinx = \sqrt{3}$

6. $2\ sinx\ cosx = \sqrt{3}\ sinx$

9. $4\ sinx\ cosx - 2\sqrt{3}\ sinx\ - 2\sqrt{2}\cos x + \sqrt{6} = 0$

10. $sec^2x + \sqrt{3}\sec x - \sqrt{2}\sec x - \sqrt{6} = 0$

13. $2\ sin^2x + 1 = 3\ sinx$

16. $2\ sin^2x - 1 = 0$

19. $4sin^2x + 2\sqrt{3}\ sinx - \sqrt{3} = 2\ sinx$

In Exercises 23 to 60, solve each equation, where $0° \leq x < 360°$.
Round approximate solutions to the nearest tenth of a degree.

26. $4\ cosx - 1 = 0$

36. $4\ cot^2x + 3\ cotx = 0$

49. $2\,sinx\,cosx - sinx - 2\,cosx + 1 = 0$

59. $cos^2x - 3\,sinx + 2\,sin^2x = 0$

27. $3\sec x - 8 = 0$

39. $tan^2x = 3\,sec^2x - 2$

45. $2tan^2x - \tan x - 10 = 0$

In Exercises 61 to 70, find the exact solutions, in radians, of each trigonometric equation.

66. $cos2x = -\frac{\sqrt{3}}{2}$

69. $sin^2\frac{x}{2} + \cos x = 1$

In Exercises 71 to 84, find the exact solutions, where $0 \leq x < 2\pi$.

76. $tan\frac{x}{2} = 1 - cosx$

78. $cos2x\,cosx - sin2x\,sinx = 0$