Solving Trig Equations w/Calculator

In 35 – 48, solve each equation for solutions in the interval $[0°, 360°)$

35. $3\sin^2\theta - \sin\theta = 2$

36. $\dfrac{2\tan\theta}{3 - \tan^2\theta} = 1$

37. $\sec^2\theta = 2\tan\theta + 4$

38. $5\sec^2\theta = 6\sec\theta$

39. $3\cot^2\theta = \cot\theta$

40. $8\cos\theta = \cot\theta$

41. $9\sin^2\theta - 6\sin\theta = 1$

42. $4\cos^2\theta + 4\cos\theta = 1$

43. $\tan^2\theta + 4\tan\theta + 2 = 0$

44. $3\cot^2\theta - 3\cot\theta - 1 = 0$

45. $\sin^2\theta - 2\sin\theta + 3 = 0$

46. $2\cos^2\theta + 2\cos\theta - 1 = 0$

47. $\cot\theta + 2\csc\theta = 3$

48. $2\sin\theta = 1 - 2\cos\theta$

Determine all solutions of each equation in radians.

49. $2\sin^2 x - \sin x - 1 = 0$

50. $2\cos^2 x + \cos x = 1$

51. $4\cos^2 x - 1 = 0$

52. $2\cos^2 x + 5\cos x + 2 = 0$

53. $\cos^2 x + \cos x - 6 = 0$

54. $\sin^2 x - \sin x = 0$