

$$13.45. y'' - 7y' + 12y = x.$$

$$13.47. y'' - 4y' + 4y = 4x.$$

$$13.49. y'' - 2y' + 3y = x + 1.$$

$$13.51. y'' - 3y' + 2y = x^2.$$

$$13.53. y'' - y = 2 \sin x.$$

$$13.55. y'' + 9y = \sin 3x.$$

$$13.57. y'' + 4y = 2 \cos x + \sin x.$$

$$13.59. y'' - 2y' + 2y = 2 \cos x + \sin x.$$

$$13.61. y'' + y = e^x.$$

$$13.63. y'' - 4y = 10e^{3x}.$$

$$13.65. y'' - 4y' + 4y = e^{2x}.$$

$$13.67. y'' + 9y = x \cos x.$$

$$13.69. y'' - 8y' + 16y = xe^{2x}.$$

$$13.46. y'' + y' - 2y = 4x.$$

$$13.48. y'' + 6y' + 10y = 1 - x.$$

$$13.50. y'' - 4y' + 4y = x^2.$$

$$13.52. y'' - \frac{2}{3}y' - \frac{1}{3}y = \frac{1}{3}x^2.$$

$$13.54. y'' + y = a \cos x, \quad a \neq 0.$$

$$13.56. y'' + y = 2 \sin x - \cos x.$$

$$13.58. y'' + 9y = 2 \cos 3x + 5 \sin 3x.$$

$$13.60. 2y'' - y' - y = 3 \cos 2x - \sin 2x.$$

$$13.62. y'' + 2y' + y = 8e^x.$$

$$13.64. y'' - a^2y = e^{bx}, \quad a \neq 0, \quad b \neq 0.$$

$$13.66. y'' - 5y' + 6y = e^{nx}.$$

$$13.68. y'' + 4y = x \sin 2x$$

$$13.70. y'' - 3y' + 2y = xe^{3x}.$$