
1. $y' \cos x = (y^2 + 4y) \sin x$; $y \Big|_{x=0} = 1$; $\Delta x = 0.025$.

2. $y' - \frac{xy}{1+x^2} = 2 - x$; $y \Big|_{x=0} = 1$; $\Delta x = 0.3$.

3. $xy' - y = 2x \operatorname{tg} \frac{y}{x}$; $y \Big|_{x=3} = \frac{\pi}{2}$; $\Delta x = -0.1$.

4. $y' (x^4 + 4) \ln y = xy$; $y \Big|_{x=0} = 2$; $\Delta x = 0.1$.

5. $(x+1)dy - (x+1)^4 dx = 2y dx$; $y \Big|_{x=0} = -1$; $\Delta x = 0.1$.

6. $(x+1)y' \ln(x+1) = y \ln y$; $y \Big|_{x=1} = 4$; $\Delta x = 0.1$.

7. $y \sin x + y' \cos x = 1$; $y \Big|_{x=0} = -2$; $\Delta x = 0.1$.

8. $xy' = 2\sqrt{xy} - y$; $y \Big|_{x=1} = 4$; $\Delta x = 0.1$.

9. $xe^y y' = (e^y + 1) \ln^2 x$; $y \Big|_{x=1} = 0$; $\Delta x = 0.1$.

10. $2y = x(y' + x^2 \sin x)$; $y \Big|_{x=\frac{\pi}{2}} = -\frac{\pi}{4}$; $\Delta x = \frac{\pi}{20}$.

11. $(x^2 - 2y) - xy' = 0$; $y \Big|_{x=1} = 0$; $\Delta x = 0.1$.

12. $y' = yx \cos x$; $y \Big|_{x=0} = 1$; $\Delta x = 0.1$.

13. $xy' = y - 3xe^{y/x}$; $y \Big|_{x=1} = 0$; $\Delta x = 0.1$.

14. $y - 2x - 2y' = 0$; $y \Big|_{x=0} = 0$; $\Delta x = 0.1$.

15. $xy' \cos \frac{y}{x} = y \cos \frac{y}{x} - x$; $y \Big|_{x=1} = 0$; $\Delta x = 0.075$.

16. $2xy' + 3y = x^6$; $y \Big|_{x=1} = 0$; $\Delta x = 0.05$.

17. $x^3 y' - x^2 y + 2 = 0$; $y \Big|_{x=1} = 2$; $\Delta x = 0.1$.

18. $dy + (y - x^2) dx = 0$; $y \Big|_{x=0} = 1$; $\Delta x = 0.1$.

19. $y' = y + x e^x$; $y \Big|_{x=0} = -1$; $\Delta x = 0.1$.

20. $\sin 2y (1 + 2\sqrt{x}) y' = \sqrt{x}$; $y \Big|_{x=0} = 0$; $\Delta x = 0.1$.

21. $y(x^2 - 4x - 5) y' = 2x$; $y \Big|_{x=0} = 2$; $\Delta x = 0.1$.

22. $2x^2 y' + 1 = 3xy$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

23. $xy^2 y' = 2x^3 + y^3$; $y \Big|_{x=1} = -2$; $\Delta x = 0.1$.

24. $(5 - 4xy) dx + x^2 dy = 0$; $y \Big|_{x=1} = 0$; $\Delta x = 0.1$.

25. $(x + \sqrt{x^2 - y^2}) dx = y dy$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

26. $xy' - y = y(\ln y - \ln x)$; $y \Big|_{x=1} = 7$; $\Delta x = 0.1$.

27. $y' \cos x + y \sin x = \cos x \operatorname{tg} \frac{x}{2}$; $y \Big|_{x=0} = 0$; $\Delta x = 0.1$.

28. $\sin y \cdot y' = x \operatorname{arctg} x$; $y \Big|_{x=0} = 0$; $\Delta x = 0.05$.

29. $y' e^{2x-y} = x + 1$; $y \Big|_{x=0} = 0$; $\Delta x = 0.1$.

30. $(x + 1) dy = (x + 1 - 3y) dx$; $y \Big|_{x=0} = 0$; $\Delta x = 0.1$.

31. $xy' = y(2 - \ln y + \ln x)$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

32. $xy' = 3y - x^5$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

33. $y' \operatorname{tg}^2 x = \sin^2 3y$; $y \Big|_{x=\frac{\pi}{4}} = \frac{\pi}{12}$; $\Delta x = \frac{\pi}{40}$.

34. $\sqrt[3]{x} y' = y^3 \ln x$; $y \Big|_{x=1} = -\frac{1}{3}$; $\Delta x = 0.1$.

35. $y' \sin x - y \cos x - \sin^2 x = 0$; $y \Big|_{x=\frac{\pi}{2}} = 0$; $\Delta x = \frac{\pi}{50}$.

36. $(e^{y+x} + e^{y-x}) y' = e^{x-y}$; $y \Big|_{x=0} = 0$; $\Delta x = 0.1$.

37. $x^2 + y^2 = 3xyy'$; $y\Big|_{x=1} = 1$; $\Delta x = 0.1$.

38. $xy' = \sqrt{x^2 + y^2} + y$; $y\Big|_{x=0} = 1$; $\Delta x = 0.1$.

39. $2xy' - 3x^2 = y$; $y\Big|_{x=1} = 0$; $\Delta x = 0.1$.

40. $(5 + 4x + x^2)yy' = 3$; $y\Big|_{x=-2} = -1$; $\Delta x = 0.1$.

41. $y' - 2 = x - y$; $y\Big|_{x=0} = 0$; $\Delta x = 0.1$.

42. $xy' = 2\sqrt{x^2 - y^2} + y$; $y\Big|_{x=1} = 0$; $\Delta x = 0.1$.

43. $xydy = (y^2 - x^2)dx$; $y\Big|_{x=1} = -2$; $\Delta x = 0.1$.

44. $xyy' + y^2 = yx^3$; $y\Big|_{x=1} = 1$; $\Delta x = 0.1$.

45. $xy' - 4y - x^2 = 0$; $y\Big|_{x=1} = 0$; $\Delta x = 0.1$.

46. $xy' - 3\sqrt{xy} = 2y$; $y\Big|_{x=1} = 1$; $\Delta x = 0.1$.

47. $y^2 y' + y^2 \sin^2 x = y^3 \operatorname{tg} x$; $y \Big|_{x=0} = 1$; $\Delta x = 0.05$.

48. $x y' = y + \operatorname{arctg} x$; $y \Big|_{x=1} = 0$; $\Delta x = 0.1$.

49. $y(1+x^2)y' = (2y-y^2)x$; $y \Big|_{x=0} = 0$; $\Delta x = 0.1$.

50. $dy - (2xy + x^3) dx = 0$; $y \Big|_{x=0} = 0$; $\Delta x = 0.1$.

51. $y' \ln y = y \ln x$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

52. $y' - 3x = \frac{xy}{x^2 - 1}$; $y \Big|_{x=2} = 0$; $\Delta x = 0.1$.

53. $y' \cos x = (y^2 + 4y) \sin x$; $y \Big|_{x=0} = 4$; $\Delta x = 0.1$.

54. $(x+1)dy - (x+1)^4 dx = 2y dx$; $y \Big|_{x=0} = 1$; $\Delta x = 0.1$.

55. $y' = y \ln y \ln(x+1)$; $y \Big|_{x=0} = \sqrt{e}$; $\Delta x = 0.1$.

56. $y \sin x + y' \cos x = 1$; $y \Big|_{x=0} = 1$; $\Delta x = 0.1$.

57. $x y' = 2\sqrt{xy} - y$; $y \Big|_{x=1} = 9$; $\Delta x = 0.1$.

58. $x e^y y' = (e^y + 1) \ln^2 x$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

59. $(x^2 - 2y) - x y' = 0$; $y \Big|_{x=1} = -1$; $\Delta x = 0.1$.

60. $y' = yx \cos x$; $y \Big|_{x=0} = -2$; $\Delta x = 0.1$.

61. $xy' = y - 3xe^{y/x}$; $y \Big|_{x=1} = 2$; $\Delta x = 0.1$.

62. $y - 2x - 2y' = 0$; $y \Big|_{x=0} = 3$; $\Delta x = 0.1$.

63. $xy' \cos \frac{y}{x} = y \cos \frac{y}{x} - x$; $y \Big|_{x=1} = \frac{\pi}{6}$; $\Delta x = 0.05$.

64. $2xy' + 3y = x^6$; $y \Big|_{x=1} = 1$; $\Delta x = 0.05$.

65. $x^3y' - x^2y + 2 = 0$; $y \Big|_{x=1} = -2$; $\Delta x = 0.1$.

66. $dy + (y - x^2) dx = 0$; $y \Big|_{x=0} = 4$; $\Delta x = 0.1$.

67. $y' - 3x = \frac{xy}{x^2 - 1}$; $y \Big|_{x=2} = 1$; $\Delta x = 0.1$.

68. $y(x^2 - 4x - 5)y' = 2x$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

69. $2x^2y' + 1 = 3xy$; $y \Big|_{x=1} = -1$; $\Delta x = 0.1$.

70. $xy^2y' = 2x^3 + y^3$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

71. $(5 - 4xy) dx + x^2 dy = 0$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

72. $(x + \sqrt{x^2 - y^2}) dx = y dy$; $y \Big|_{x=1} = \frac{1}{2}$; $\Delta x = 0.1$.

73. $xy' - y = y(\ln y - \ln x)$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

74. $y' \cos x + y \sin x = \cos x \operatorname{tg} \frac{x}{2}$; $y \Big|_{x=0} = 2$; $\Delta x = 0.05$.

75. $y' e^{2x-y} = x + 1$; $y \Big|_{x=0} = -2$; $\Delta x = 0.1$.

76. $(x + 1) dy = (x + 1 - 3y) dx$; $y \Big|_{x=0} = 2$; $\Delta x = 0.1$.

77. $xy' = y(2 - \ln y + \ln x)$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

78. $xy' = 3y - x^5$; $y \Big|_{x=1} = 3$; $\Delta x = 0.1$.

79. $y' - 2 = x - y$; $y \Big|_{x=0} = -1$; $\Delta x = 0.1$.

80. $(e^{y+x} + e^{y-x}) y' = e^{x-y}$; $y \Big|_{x=0} = 2$; $\Delta x = 0.1$.

81. $x^2 + y^2 = 3xy y'$; $y \Big|_{x=1} = 3$; $\Delta x = 0.1$.

82. $xy' = \sqrt{x^2 + y^2} + y$; $y \Big|_{x=0} = 2$; $\Delta x = 0.1$.

83. $2xy' - 3x^2 = y$; $y \Big|_{x=1} = 1$; $\Delta x = 0.1$.

84. $(5 + 4x + x^2) y y' = 3$; $y \Big|_{x=-2} = 2$; $\Delta x = 0.1$.

85. $xy' - 3\sqrt{xy} = 2y$; $y\Big|_{x=1} = 0$; $\Delta x = 0.1$.

86. $xy dy = (y^2 - x^2) dx$; $y\Big|_{x=1} = 3$; $\Delta x = 0.1$.

87. $xyy' + y^2 = yx^3$; $y\Big|_{x=1} = -2$; $\Delta x = 0.1$.

88. $xy' - 4y - x^2 = 0$; $y\Big|_{x=1} = 1$; $\Delta x = 0.1$.

89. $y^2 y' + y^2 \sin^2 x = y^3 \operatorname{tg} x$; $y\Big|_{x=0} = 2$; $\Delta x = 0.1$.

90. $xy' = y + \operatorname{arctg} x$; $y\Big|_{x=1} = 2$; $\Delta x = 0.1$.

91. $y' \cos x = (y^2 - 3y) \sin x$; $y\Big|_{x=0} = 1$; $\Delta x = 0.025$.

92. $y' - \frac{2xy}{1+x^2} = 1 - 2x$; $y\Big|_{x=0} = 1$; $\Delta x = 0.1$.

93. $xy' = y - 3x \operatorname{tg} \frac{y}{x}$; $y\Big|_{x=3} = \frac{\pi}{6}$; $\Delta x = 0.1$.

94. $y' (x^6 + 1) \ln y = 3x^2 y$; $y\Big|_{x=0} = 2$; $\Delta x = 0.1$.

95. $(x+2)y' - (x+2)^3 = 2y$; $y\Big|_{x=0} = 4$; $\Delta x = 0.1$.

96. $(x-1)y' \ln(x-1) = y \ln y$

97. $y \sin x + y' \cos x = 2x$; $y\Big|_{x=0} = -1$; $\Delta x = 0.05$.
