

53. $y = \frac{x^6}{(3x+2)^2}$

54. $y = \ln(1+x^2)$

55. $y = \ln\left(\frac{3-5x}{2x+7}\right)$

56. $y = \ln\left(\frac{x}{x^2+4}\right)$

57. $y = \ln\left(\frac{1+\sqrt{x}}{1-\sqrt{x}}\right)$

58. $y = \ln\sqrt{\frac{1+x^2}{1-x^2}}$

59. $y = e^{-x^2}$

60. $y = (x^2+1) \cdot e^{2x}$

61. $y = e^{\sqrt{x}}$

62. $y = \frac{e^x}{1+e^x}$

63. $y = \ln\left(\frac{1-e^x}{1+e^x}\right)$

64. $y = \ln\sqrt{\frac{1+x}{1-x}}$

65. $y = (1+x)^x$

66. $y = \ln^2 x$

67. $y = \ln^3\left(\frac{3x^2-1}{2x}\right)$

68. $y = \operatorname{sen}^2 x$

69. $y = \cos x^2$

70. $y = (\cos x)^x$

71. $y = \operatorname{tg}^2 x$

72. $y = \operatorname{sen}(x^2+3x)$

73. $y = 4\operatorname{sen}^2 x + e^\pi \operatorname{sen} x$

74. $y = 5\cos^2 x + \frac{\cos^3 x}{\ln 2}$

75. $y = \frac{\operatorname{sen} x}{1+\operatorname{tg}^2 x}$

76. $y = \frac{\operatorname{sen} x + \cos x}{\cos x - \operatorname{sen} x}$

77. $y = \arccos x^2$

78. $y = \operatorname{arctg} 3x^2$

79. $y = \operatorname{arccotg} \frac{1+x}{1-x}$

80. $y = x \cdot \operatorname{arccosec} \frac{1}{x} + \sqrt{1-x^2}$

81. $y = \frac{1}{6} \operatorname{arctg}\left(\frac{3}{2} \operatorname{tg} x\right)$

82. $y = (x-2) \cdot \sqrt{4x-x^2} + 4 \operatorname{arcsen} \frac{x-2}{2}$

83. $y = \frac{\sqrt{x^2-4}}{x^2} + \frac{1}{2} \operatorname{arcsec} \frac{x}{2}$