

Varianty zadání

1	$y' = \frac{-2x}{x^2 + 1} \cdot y, \quad y(0) = 1$
2	$y' = \frac{x+1}{x} \cdot \frac{1}{y+1}, \quad y(1) = 2$
3	$y' = \frac{y+1}{x+1}, \quad y(0) = 3$
4	$y' = xy, \quad y(0) = 1$
5	$y' = -xy, \quad y(0) = 1$
6	$y' = x^2 y^2, \quad y(0) = 1$
7	$y' = \frac{x}{1+y^2}, \quad y(0) = 1$
8	$y' = \frac{x}{y}, \quad y(0) = 1$
9	$y' = e^x \frac{y}{1+y^2}, \quad y(0) = 1$
10	$y' = \frac{2y+1}{x}, \quad y(1) = 0$
11	$y' = \frac{y}{2\sqrt{x}}, \quad y(4) = 1$

12	$y' = -\frac{y^2}{x^2}, \quad y(-1) = 1$
13	$y' = x(y^2 + 1), \quad y(0) = 1$
14	$y' = y^2(x+2), \quad y(0) = 1$
15	$y' = -y \cotg x, \quad y\left(-\frac{\pi}{2}\right) = 1$
16	$y' = y \cotg x, \quad y\left(\frac{3\pi}{2}\right) = 2$
17	$y' = \frac{y^2}{1-x}, \quad y(2) = -1$
18	$y' = \frac{1+y^2}{x^2}, \quad y\left(-\frac{4}{\pi}\right) = 1$
19	$y' = \frac{x+2}{x^2} \cdot \frac{1}{y}, \quad y(1) = 1$
20	$y' + e^y = 0, \quad y(0) = 0$
21	$y' = \frac{1+y}{x}, \quad y(2) = 3$
22	$y' = \frac{x(y^2 + 1)}{y(1-x^2)}, \quad y(0) = 1$
23	$y' = y^2 x \ln x, \quad y(1) = 4$
24	$y' = \frac{y \ln y}{x}, \quad y(1) = e$

$$1 \quad y' - y = e^{2x}, \quad y(0) = 2$$

$$2 \quad y' - y = x, \quad y(0) = 0$$

$$3 \quad y' + 2xy = e^{-x^2}, \quad y(0) = 1$$

$$4 \quad y' + 2xy = xe^{-x^2}, \quad y(0) = 1$$

$$5 \quad y' + 2xy = \cos(x)e^{-x^2}, \quad y(0) = 1$$

$$6 \quad y' + 2xy = e^x \cdot e^{-x^2}, \quad y(0) = 1$$

$$7 \quad y' + 2xy = \frac{e^{-x^2}}{2\sqrt{x}}, \quad y(1) = e^{-1}$$

$$8 \quad y' + 2xy = \frac{e^{-x^2}}{1+x^2}, \quad y(0) = 1$$

$$9 \quad y' - \frac{1}{x}y = 2x^2, \quad y(1) = 2$$

$$10 \quad y' - \frac{1}{x}y = \frac{\sqrt{x}}{x}, \quad y(4) = 12$$

$$11 \quad y' - \frac{1}{x}y = x \cos(x), \quad y(\pi) = \pi$$

$$12 \quad y' - \frac{1}{x}y = xe^x, \quad y(1) = e$$

$$13 \quad y' - \frac{1}{x}y = -4, \quad y(-1) = 3$$

$$14 \quad y' + \frac{1}{x}y = 4, \quad y(1) = 3$$

$$15 \quad y' + \frac{1}{x}y = \frac{e^x}{x}, \quad y(1) = e$$

$$16 \quad y' + \frac{1}{x}y = \cos x, \quad y(\pi) = 0$$

$$17 \quad y' + \frac{1}{x}y = \frac{\ln x}{x^2}, \quad y(1) = \frac{1}{2}$$

$$18 \quad y' - \frac{2}{x}y = x^2 \cos(x), \quad y(\pi) = \pi^2$$

RTA

$$19 \quad y' - \frac{2}{x}y = x, \quad y(1) = 1$$

$$20 \quad y' + \frac{2}{x}y = 4x, \quad y(1) = 2$$

$$21 \quad y' + \frac{2}{x}y = \frac{e^x}{x}, \quad y(1) = 1$$

$$22 \quad y' - \frac{3}{x}y = x^3 \ln x, \quad y(1) = -1$$

$$23 \quad y' - \frac{3}{x}y = 2x^4 \ln x, \quad y(1) = -\frac{1}{2}$$

$$24 \quad y' + \frac{3}{x}y = 4 \ln x, \quad y(1) = -\frac{1}{4}$$
