

Diferenciālvienādojumi.

1.

$$y' - 2xy = \frac{1}{x} e^{x^2}$$

2.

$$y' - y \operatorname{ctg} x = \operatorname{tg}^2 x$$

3.

$$x(y' - y) = (1 + x^2)e^x$$

4.

$$y' - \frac{2x}{1+x^2} y = \sqrt{1+x^2}$$

5.

$$y' + \frac{2y}{x} = \frac{2\sqrt{y}}{\cos^2 x}$$

6.

$$y' + \left(1 + \frac{1}{x^2}\right) y = x e^{\frac{1}{x}}$$

7.

$$y' - y \operatorname{tg} x = \cos x$$

8.

$$y' + \frac{x}{1-x^2} y = \arcsin x$$

9.

$$y' = \frac{y}{2y \ln y + y - x}$$

10.

$$y' - y \operatorname{tg} x + y^2 \cos x = 0$$