

Вариант 2.

1. $(x + xy) + y'(xy + y) = 0$

2. $xy' = y + x \sin \frac{y}{x}$

3. $(2x + 1)y' = 4x - 2y, y(0) = 1$

4. $y' + 2y = y^2 e^x$

5. $(xy \cos xy + \sin xy)dx + x^2 \cos xy dy = 0$

6. $x^2 y'' = (y')^2$

7. $y^3 y'' = -1, y(1) = y'(1) = 1$

8. $y'' + 4y = 0, y(0) = 0, y'(0) = 2$

9. $y^{(IV)} - 18y''' + 81y'' = 0$

10. $y'' + 2y' = \cos x$

11. $y'' + y' = x + e^{-x}$

12. $y'' + y = 3 \sin x$

13. $y'' - 18y' + 81y = x^3 e^{9x}$

14. $y'' + 4y = \frac{2}{\sin 2x}$

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