

Вариант 18.

1. $y' \operatorname{ctg} x + y = 2, y(0) = -1$

2. $(y - x)dy + ydx = 0$

3. $y - xy' = 6(1 + x^2)$

4. $xy' + 2y + x^5y^3e^x = 0$

5. $(3x^2 - 2x - y)dx + (2y - x + 3y^2)dy = 0$

6. $y''x + x(y')^2 - y' = 0, y(1) = y'(1) = 2$

7. $y''y^3 = 2$

8. $y'' - 9y = 0, y(0) = 0, y'(0) = 3$

9. $y^{(IV)} + 5y'' + 4y = 0$

10. $y'' + 3y' = 3x^2 + 1$

11. $y'' - 14y' + 49y = 3 \cos 3x$

12. $y'' + 4y = 2 \cos 2x$

13. $y'' + 4y' + 13y = e^{-x} \sin 3x + e^{-x}x \cos 3x$

14. $y'' + 2y' + y = \frac{e^{-x}}{2x}$

15. $y''' + 8y' = \cos 2x$