1. $x^3 + 3y - xy' = 0$
2. $xy^2 + 3y^2 - x^2y' = 0$
3. $xy + y^2 - x^2y' = 0$
4. $2xy^3 + e^x + (3x^2y^2 + \sin y)y' = 0$
5. $3y + x^4y' = 2xy$
6. $2xy^2 + x^2y' = y^2$
7. $2x^2y + x^3y' = 1$
8. $2xy + x^2y' = y^2$
9. $xy' + 2y = 6x^2\sqrt{y}$
10. $y' = 1 + x^2 + y^2 + x^2y^2$
11. $x^2y' = xy + 3y^2$
12. $6xy^3 + 2y^4 + (9x^2y^2 + 8xy^3)y' = 0$
13. $4xy^2 + y' = 5x^4y^2$
14. $x^3y' = x^2y - y^3$
15. $y' + 3y = 3x^2e^{-3x}$
16. $y' = x^2 - 2xy + y^2$
17. $e^x + ye^{xy} + (e^y + xe^{yx})y' = 0$
18. $2x^2y - x^3y' = y^3$
19. $3x^5y^2 + x^3y' = 2y^2$
20. $xy' + 3y = 3x^{-3/2}$
21. $(x^2 - 1)y' + (x - 1)y = 1$
22. $xy' = 6y + 12x^4y^{2/3}$
23. $e^y + y\cos x + (xe^y + \sin x)y' = 0$

24. $9x^2y^2 + x^{3/2}y' = y^2$
25. $2y + (x + 1)y' = 3x + 3$
26. $9x^{1/2}y^{4/3} - 12x^{1/5}y^{3/2} + (8x^{3/2}y^{1/3} - 15x^{6/5}y^{1/2})y' = 0$
27. $3y + x^3y^4 + 3xy' = 0$
28. $y + xy' = 2e^{2x}$
29. $(2x + 1)y' + y = (2x + 1)^{3/2}$
30. $y' = \sqrt{x + y}$

31. $\dfrac{dy}{dx} = 3(y + 7)x^2$
32. $\dfrac{dy}{dx} = xy^3 - xy$
33. $\dfrac{dy}{dx} = -\dfrac{3x^2 + 2y^2}{4xy}$
34. $\dfrac{dy}{dx} = \dfrac{x + 3y}{y - 3x}$
35. $\dfrac{dy}{dx} = \dfrac{2xy + 2x}{x^2 + 1}$
36. $\dfrac{dy}{dx} = \dfrac{\sqrt{y} - y}{\tan x}$