4. Uvod u diferencijalne jednadžbe, 2. dio - Rješenja

1. $x + y - \ln c(x+1)(y+1) = 0.$
2. $y = ce^{-\frac{1}{x^2}}.$
3. $cy(x+\sqrt{x^2+1}) = \sqrt{x^2+1}$, $c = 1$, $y(x+\sqrt{x^2+1}) = \sqrt{x^2+1}.$
4. $y = \dfrac{1}{1-cx}.$
5. $y = \ln\left[c(1+x^2) - 1\right]$, $c = 2$, $y = \ln(2x^2+1).$
6. $\ln c\sqrt{y^2 - xy + x^2} + \dfrac{1}{\sqrt{3}} \operatorname{arctg} \dfrac{2y-x}{x\sqrt{3}} = 0.$
7. $\dfrac{x}{y} + e^{\frac{x}{y}} = \dfrac{1}{cy}.$
8. $2y^2 \ln(cy) + x^2 = 0.$
9. $\dfrac{y}{x} \operatorname{arctg} \dfrac{y}{x} = \dfrac{1}{2} \ln(x^2+y^2) + \ln c.$
10. $(y-x+1)^2(y+x-1)^5 = c.$
11. $\dfrac{2}{5}(2x-y) + \dfrac{7}{25} \ln(10x+5y+9) = x + c.$
12. $(x+y-1)^3 = c(x-y+3).$
13. $3x + y + 2\ln|x+y-1| = c.$
14. $x \sin y = c.$
15. $\dfrac{1}{3}x^3 - xy + \dfrac{1}{3}y^3 = c.$
16. $e^x \left(x^2 y + \dfrac{y^3}{3}\right) = c$, $\lambda = e^x.$

17. $\dfrac{x^2}{2} + \dfrac{x}{y} = c.$

18. $x^2 \ln y + \dfrac{1}{3}(y^2+1)^{\frac{3}{2}} = c.$

19. $(x \sin y + y \cos y - \sin y)e^x = c,\ \lambda = e^x.$

20. $y = cx^2.$

21. $x^2 + (y-1)^2 = 1.$

22. $2x^2 + y^2 = c^2.$

23. $x^2 - y^2 = c.$

24. $y = 0,\ y = -4x.$

25. $y = 1,\ y = -1.$

26. $y = 1.$