MATEMATIKA II

Rješenja zadataka za vježbu za I kolokvij - diferencijalne jednadžbe

1. $y = \ln|e^x + C|$.

2. $\operatorname{arctg} x - \sqrt{1 - y^2} = -1$

3. $y = C \cos x$.

4. $y = x^2 + x$

5. $y^2 = 2x^2 \ln|Cx|$

6. $y = \dfrac{x}{2} - \dfrac{1}{2C^2 x}$

7. $2y^2 + 2xy + x^2 = C^2$

8. $y = \sin x + C \cos x$

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

10. $y = 3x^2 - 2x \ln|x|$

11. $y = 2e^{3x} + 4e^x$

12. $y = 2e^{-\frac{x}{2}} + xe^{-\frac{x}{2}}$

13. $y = C_1 e^x + C_2 e^{-x} - \dfrac{\cos x + \sin x}{2}$

14. $y = C_1 + C_2 e^x + \dfrac{3e^{-x}}{2}$

15. $y = C_1 e^{6x} + C_2 e^{2x} + \dfrac{x}{12} + \dfrac{1}{18}$

16. $y = C_1 e^x + C_2 e^{-x} + \dfrac{x e^x}{2}$

17. $y = C_1 \cos x + C_2 \sin x - \dfrac{x \cos x}{2}$

18. $y = C_1 \cos x + C_2 \sin x + x^2 - 2$

19. $y = C_1 e^x + C_2 xe^x - x - 1$