

Section 2.4 Assigned problems: 1-10, 13-19, 21.

1. $2 + Ce^{-x}$
2. $-\frac{5}{3} + Ce^{3x}$
3. $\frac{C}{x^2} + \frac{\sin(x)}{x^2}$
4. $\frac{5}{2} + Ce^{-t^2}$
5. $(1+t)^2(t+C)$
6. $t^4(C + \ln(t))$
7. $\frac{C + \sin(x)}{1+x}$
8. $\frac{1}{3}(1+x^3)(C + \ln(1+x^3))$
9. $\frac{E}{R} + Ce^{-\frac{R}{L}t}$
10. $e^{mx}(c_1x + C)$
13. $1 + Ce^{-\sin(x)}$
14. $e^x(5 + 2e^x(x-1))$
15. $2 - \frac{3}{(1+x^2)^{\frac{3}{2}}}$
16. $\frac{\arctan(t) - \pi/4}{(1+t^2)^2}$
17. $-1 + \sin(t) + 2e^{-\sin(t)}$
18. $\frac{\sin(x) - x \cos(x) - 1}{x^2}$ The interval of existence is $(0, +\infty)$.
19. $\frac{1}{2}\sqrt{3+2x} \ln(3+2x)$ The interval of existence is $(-\frac{3}{2}, +\infty)$.
21. $\frac{1 + \sin(t)}{1+t}$ The interval of existence is $(-\infty, -1)$.