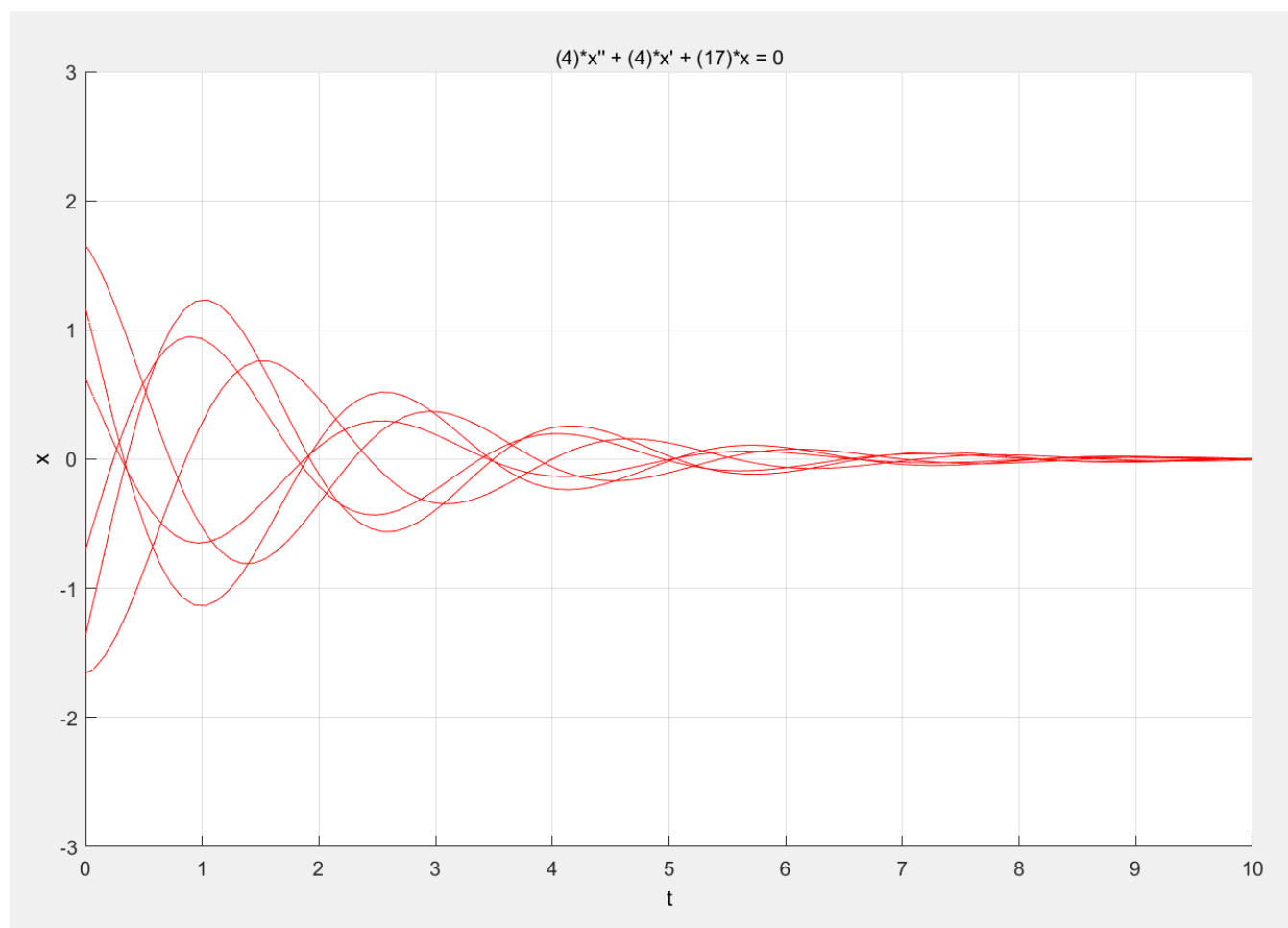


This PDF file contains plots for exercises 1, 2, 3 and 7.

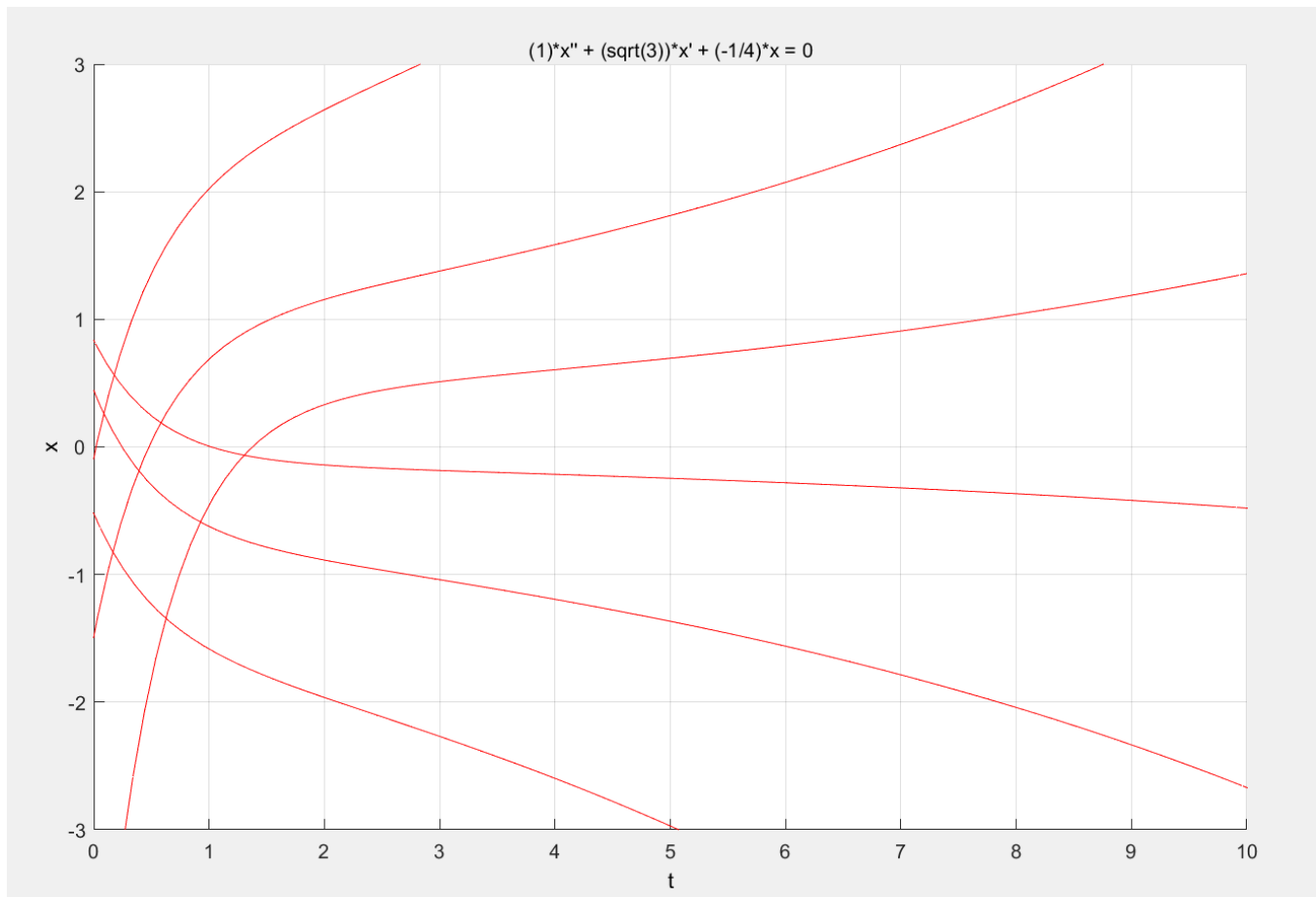
Exercise 1

- **Solutions to the ODE:** $4x'' + 4x' + 17x = 0$
- **General solution:** $x = c_1 e^{-\frac{t}{2}} \cos(2t) + c_2 e^{-\frac{t}{2}} \sin(2t)$



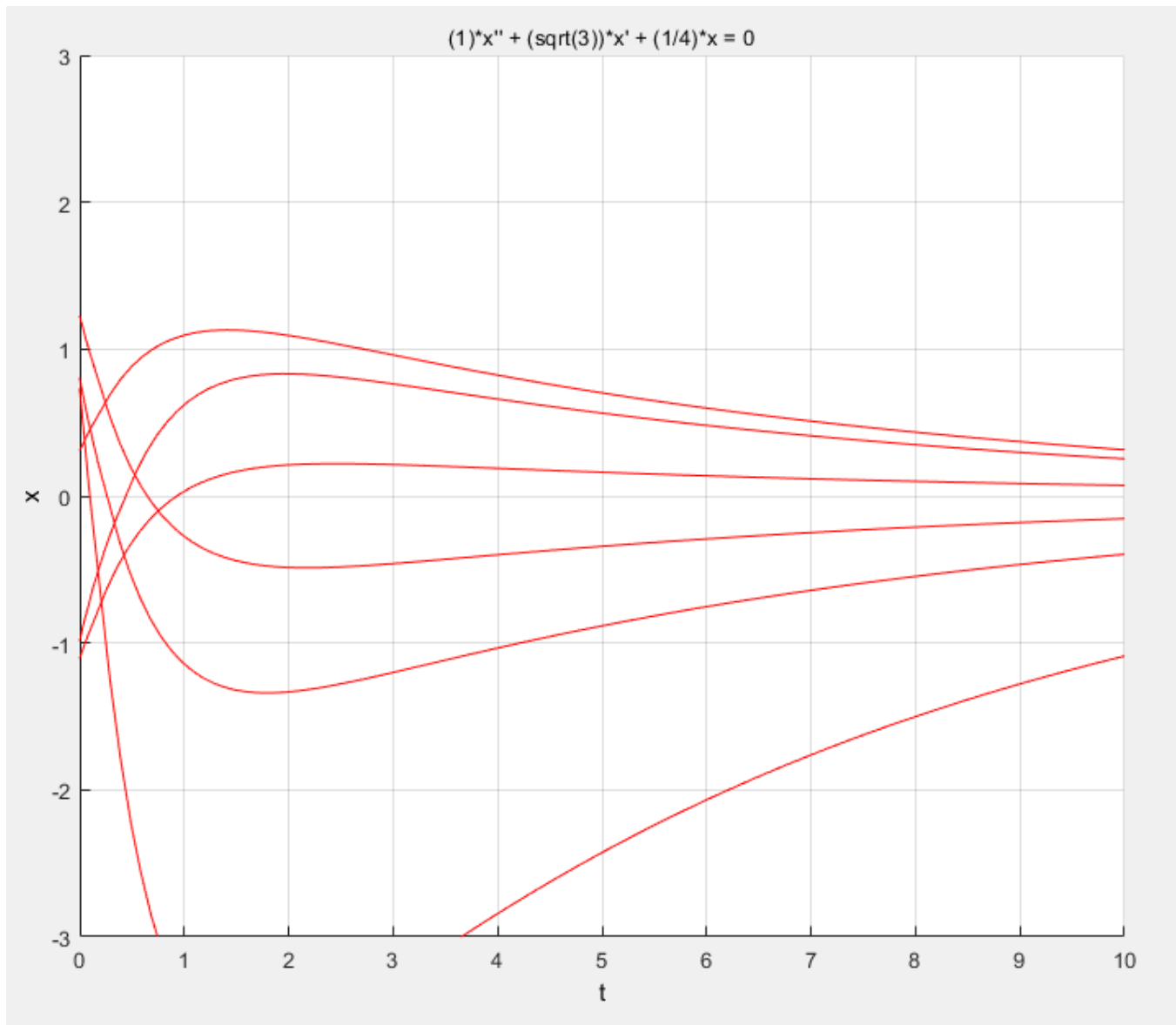
Exercise 2

- **Solutions to the ODE:** $x'' + \sqrt{3}x' - \frac{1}{4}x = 0$
- **General solution:** $x = c_1 e^{\frac{-\sqrt{3}+2}{2}t} + c_2 e^{\frac{-\sqrt{3}-2}{2}t}$



Exercise 3

- **Solutions to the ODE:** $x'' + \sqrt{3}x' + \frac{1}{4}x = 0$
- **General solution:** $x = c_1 e^{\frac{-\sqrt{3}+\sqrt{2}}{2}t} + c_2 e^{\frac{-\sqrt{3}-\sqrt{2}}{2}t}$



Exercise 7

Solution approximated using DE2_zhaoli50 is in orange/brown, while the solution given by iode is plotted in blue.

