

Esercitazione analisi 1

13/1/2026

Esercizio 1

1.

$$y''(x) + y'(x) = e^x (3 \cos x + \sin x)$$

2.

$$y'(x) = e^{x-y} \cos x$$

3.

$$y'(x) = 2x \cos^2 y(x)$$

Esercizio 2

1.

$$\begin{cases} y'(x) + \frac{6x+3}{x^2+x+1} (y(x) - 1)^2 = 0 \\ y(0) = \frac{3 \ln 3 - 1}{3 \ln 3} \end{cases}$$

2.

$$\begin{cases} y'(x) = e^x y^2(x) \\ y(0) = 1 \end{cases}$$

3.

$$\begin{cases} y'(x) = -\frac{3x^2}{5+x^3} y(x) + \sqrt[3]{x} \\ y(0) = 1 \end{cases}$$

4.

$$\begin{cases} y''(x) + y'(x) - 2y(x) = \sin x \\ y'(0) = 0 \\ y(0) = 0 \end{cases}$$