

## Differenciálegyenlet – Másodrendű – Lineáris, konstans együtthatós

1.  $y'' + y' - 2y = \sin 2x$ .

2.  $y'' + 3y' + 2y = e^{-x}$ ,  $y(0) = -2$ ,  $y'(0) = -2$ .

3.  $y'' - 4y = e^{-2x}$ ,  $y(0) = 1$ ,  $y'(0) = -2$ .

4.  $y'' - 2y' = x$ ,  $y(0) = -1/2$ ,  $y'(0) = -1$ .

5.  $y'' + y' = e^{-x} + x + 2$ ,  $y(0) = -1$ ,  $y'(0) = 2$ .

6.  $y'' - 4y' + 4y = e^{3x}$ .

7.  $y'' + 2y' + y = e^{-x} + 1$ ,  $y(0) = 2$ ,  $y'(0) = 3$ .

8.  $y'' - y' + y = 2x^3 + 3x + 1$ .

9.  $y'' + 4y = \sin 2x - 1$ ,  $y(0) = 1$ ,  $y'(0) = 2$ .

10.  $y'' - 4y' + 13y = e^{2x} \cos 3x$ .