

Week 10 Practice

November 9, 2019

- Find an appropriate assumption of the form of a particular solution for the following non-homogeneous linear differential equations with constant coefficients.

1. $y'' - 4y = (x^2 - 3) \sin 2x$;

2. $y'' - y' = -3$;

3. $y'' + 2y' + y = \sin x + 3 \cos(2x)$;

4. $y''' - 6y'' = 2 - \cos x$;

5. $y''' - 2y'' + y' = (x + x^3)e^x$.