

The Method of Undetermined Coefficients

Write down the $Y(t)$ you would try for the particular solution for the following differential equations.

1. $y'' + y = t$

2. $y'' + y = 3 \sin t$

3. $y'' + y = t \sin t$

4. $2y'' + 4y = 5te^t$

5. $y'' + 3y' = 5$

6. $y'' = 7$

7. $y'' = 6t + 3$

8. $y'' + 9y = t^3 + 2 \sin 3t + 5 \cos 3t$

9. $y'' - 6y' + 9y = 5 \sin 7t + 4te^t - t^4$

10. $y'' - 8y' + 16y = 2t \sin t + 5 \cos t - 7t^2 e^{4t}$