## Math 2080: Differential Equations <br> Worksheet 3.3: The method of undetermined coefficients

## NAME:

Find the general solution to the following 2 nd order differential equations.

1. $y^{\prime \prime}+2 y^{\prime}-3 y=0$
2. $y^{\prime \prime}+2 y^{\prime}-3 y=e^{3 t}$
3. $y^{\prime \prime}+2 y^{\prime}-3 y=2 t^{2}$
4. $y^{\prime \prime}+2 y^{\prime}-3 y=5 \sin 3 t$
5. $y^{\prime \prime}+2 y^{\prime}-3 y=e^{2 t}$
