

## Math 2080: Differential Equations

### Worksheet 3.7: Cauchy-Euler equations

**NAME:**

Find the general solution of the following Cauchy-Euler ODEs. When the roots are imaginary, write the solution using sines and cosines rather than powers of complex numbers.

1.  $x^2y'' - xy' - 3y = 0$ .

2.  $x^2y'' - xy' + 5y = 0$ .

3.  $x^2y'' - 3xy' + 4y = 0$ .