

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