

1. Write the general solution for each equation.

a.  $y'' - 2y' + 2y = 0$

b.  $y'' + 2y' - 8y = 0$

c.  $y'' - 10y' + 25y = 0$

d.  $4y'' + 9y = 0$

2. Solve the initial value problem  $y'' + 4y = 0$ ;  $y(0) = 0$ ;  $y'(0) = 1$ .