

1. Find the general solution for each equation.

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

b. $y'' + 4y = 0$

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

2. Find and simplify the Wronskian of $y_1 = \cos(3t)$ and $y_2 = \sin(3t)$.

3. Find the general solution to $y'' + 2y' = 3 + 4\sin(2t)$. (Hint: compare to 1a above.)