



DSolve[3*y''[x]+2*y'[x]+y[x]==0,y,x]



Input:

DSolve[$3 y''(x) + 2 y'(x) + y(x) = 0$, y , x]

Exact result:

$$\left\{ \left\{ y \rightarrow \text{Function}\left[\{x\}, e^{-x/3} C[2] \cos\left[\frac{\sqrt{2}}{3} x\right] + e^{-x/3} C[1] \sin\left[\frac{\sqrt{2}}{3} x\right]\right] \right\} \right\}$$