

In[1]:= **DSolve** $[v * \Psi''[v] + \Psi'[v] + \Psi[v] == 0, \Psi[v], v]$

Out[1]= $\{\{\Psi[v] \rightarrow \text{BesselJ}[0, 2 \sqrt{v}] c_1 + 2 \text{BesselY}[0, 2 \sqrt{v}] c_2\}\}$