8. Find the solution \( y = f(x) \) to the differential equation

\[
4 \frac{d^2 y}{dx^2} - 4 \frac{dy}{dx} + y = 0
\]

given that \( y = 4 \) and \( \frac{dy}{dx} = 3 \) when \( x = 0 \).

Answer

\[
P.S. \quad y = 4e^{\frac{x}{2}} + xe^{\frac{x}{2}}
\]