

$$\textcircled{1} \quad \frac{d^2 y}{dx^2} + 5 \frac{dy}{dx} - 3y(x) = 4x^2 - 2x + 6, \quad y(0) = 1 \text{ e } y'(0) = 2$$

$$\textcircled{2} \quad 4 \frac{d^2 y}{dx^2} - 3 \frac{dy}{dx} + 2y(x) = 4x + 1, \quad y(0) = 3 \text{ e } y'(0) = 1$$

$$\textcircled{3} \quad 2 \frac{d^2 y}{dx^2} + 5 \frac{dy}{dx} + 3y(x) = 3e^{5x} + 2e^{3x}, \quad y(0) = 5 \text{ e } y'(0) = 2$$

$$\textcircled{4} \quad \frac{d^2 y}{dx^2} + 2 \frac{dy}{dx} - 5y(x) = \sin 4x + 2 \cos 4x$$

$$\textcircled{6} \quad 8 \frac{d^2 y}{dx^2} + 10 \frac{dy}{dx} + 3y(x) = 5x + 6$$

$$\textcircled{7} \quad 10 \frac{d^2 y}{dx^2} + 4 \frac{dy}{dx} + 10y(x) = x e^{3x} \cos 2x$$

$$\textcircled{8} \quad \frac{d^2 y}{dx^2} + 10y(x) = 10e^x$$

$$\textcircled{9} \quad \frac{d^2 y}{dx^2} + 5 = 3x$$

$$\textcircled{10} \quad \frac{d^2 y}{dx^2} + 5 \frac{dy}{dx} = 3y(x) + 2x^2 + 3$$