

1-2

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$$y = C_1 \cos(2x) + C_2 \sin(2x)$$

$$y' = -2C_1 \sin(2x) + 2C_2 \cos(2x)$$

$$y(0) = 0$$

$$y(\pi/4) = 3$$

$$C_1 \cos(0) + C_2 \sin(0) = 0$$

$$C_1 \cos(2\pi/4) + C_2 \sin(2\pi/4) = 3$$

$$C_1 = 0$$

$$C_1(0) + C_2 \sin(\pi/2) = 3$$

$$C_1 = 0$$

$$C_2 = 3$$