EDOL (n) cc $\underline{\underline{NH}}$

$$y_p = 4e^{x} + 2e^{-x} - 6e^{x}\cos(2x) + 8e^{x}\operatorname{sen}(2x)$$

$$y_g = c_1 e^{x} + c_2 e^{-x} + c_3 e^{x}\cos(2x) + c_4 e^{x}\operatorname{sen}(2x)$$

EDOL(4) cc H

$$(m-1)(m+1)\big((m-1)-2i\big)\big((m-1)+2i\big)=0$$

$$(m^2-1)\big((m-1)^2-(2i)^2\big)=0$$

$$(m^2-1)(m^2-2m+\underbrace{1+4}_{5})=0$$

$$m^4-2m^3+4m^2+2m-5=0$$

$$\frac{d^4y}{dx^4}-2\frac{d^3y}{dx^3}+4\frac{d^2y}{dx^2}+2\frac{dy}{dx}-5y=0.$$

$$y_p = 4e^{x} + 2e^{-x} + 8e^{x}\operatorname{sen}(2x) - 6e^{x}\cos(2x)$$

$$y_g = \underbrace{C_1 e^{-x} + C_2 e^{x}\operatorname{sen}(2x) + C_3 e^{x}\cos(2x)}_{y_h} + \underbrace{4e^{x}}_{y_p}$$

$$y_{n-h} = y_h + y_p$$

$$y_h = C_1 e^{-x} + C_2 e^{x}\operatorname{sen}(2x) + C_3 e^{x}\cos(2x)$$

$$y_p = 4e^{x}$$

EDOL(3) cc H

$$(m+1)\left((m-1)^2 - (2i)^2\right) = 0$$

$$(m+1)(m^2 - 2m + 5) = 0$$

$$m^3 - m^2 + 3m + 5 = 0$$

$$\frac{d^3y}{dx^3} - \frac{d^2y}{dx^2} + 3\frac{dy}{dx} + 5y = 0$$

$$y_p = 4e^{x} \rightarrow y' = 4e^{x} \quad y'' = 4e^{x} \quad y''' = 4e^{x}$$

$$[4e^{x}] - [4e^{x}] + 3[4e^{x}] + 5[4e^{x}] = Q(x)$$

$$Q(x) = 32e^{x}$$

$$\frac{d^3y}{dx^3} - \frac{d^2y}{dx^2} + 3\frac{dy}{dx} + 5y = 32e^{x}$$

EDOL(3) cc NH.

$$y_p = 4e^{x} + 2e^{-x} - 6e^{x}\cos(2x) + 8e^{x}\operatorname{sen}(2x)$$

$$y_g = C_1 e^{x} + C_2 e^{x}\cos(2x) + C_3 e^{x}\operatorname{sen}(2x) + 2e^{-x}$$

EDOL(3) cc NH.

$$y_g = C_1 e^{x} + C_2 e^{-x} + C_3 e^{x}\cos(2x) + 8e^{x}\operatorname{sen}(2x)$$

EDOL(3) <u>cV</u> NH.

$$y_g = C_1 e^{x} + C_2 e^{-x} + C_3 e^{x}\operatorname{sen}(2x) - 6e^{x}\cos(2x)$$

EDOL(3) cv NH

$$y_p = 4e^x + 2e^{-x} - 6e^x\cos(2x) + 8e^x \operatorname{sen}(2x)$$

$$y_g = c_1e^x + c_2e^{-x} - 6e^x\cos(2x) + 8e^x \operatorname{sen}(2x)$$

EDOL (2) cc NH.

$$y_g = c_1e^x\cos(2x) + c_2e^x \operatorname{sen}(2x) + 4e^x + 2e^{-x}$$

EDOL (2) cc NH.

$$y_g = c_1e^x + c_2e^x\cos(2x) + 2e^{-x} + 8e^x \operatorname{sen}(2x)$$

EDOL (2) cv NH

$$y_g = c_1e^{-x} + c_2e^x\cos(2x) + 4e^x + 8e^x \operatorname{sen}(2x)$$

EDOL (2) cv NH

$$\boxed{\text{TAREA 4: Buscar las demás combinaciones y dar su clasificación}}$$