y_o....obecné řešení
y_p....tvar partikulárního řešení (Věta 12.11.)
A, B, C_1, C_2....reálné konstanty

A1.

$$y_o = C_1 e^x + C_2 x e^x + C_3 x^2 e^x$$

A2.

$$y_o = \frac{1}{5} e^{4x} + C_1 e^{-x} + C_2 e^{3x}$$

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

A3.

$$y_o = x e^x - 2 - x^2 + C_1 e^x + C_2 e^{-x}$$

$$y_p = A x e^x \text{ a } y_p = A + Bx + Cx^2$$

A4.

$$y_o = \frac{1}{10} \sin x + \frac{3}{10} \cos x + C_1 e^x + C_2 e^{2x}$$

$$y_p = A \sin x + B \cos x$$

A5.

$$y_o = e^x \left[C_1 + \frac{x}{6} + \frac{1}{40} \cos(2x) - \frac{3}{40} \sin(2x) \right] + C_2 e^{-5x}$$

$$2e^x \sin^2 x = e^x (1 - \cos(2x))$$

$$y_p = A x e^x \text{ a } y_p = e^x [A \cos(2x) + B \sin(2x)]$$

A6.

$$y_o = e^x \left[\frac{x^3}{3} - \frac{1}{4} \sin(2x) + C_1 + C_2 x \right]$$

$$y_p = x^2 (A + Bx) e^x \text{ a } y_p = e^x [A \cos(2x) + B \sin(2x)]$$

A7.

$$y_o = -\frac{1}{20} \sin x + \frac{1}{260} \sin 3x + C_1 e^x + C_2 e^{-x} + C_3 e^{2x} + C_3 e^{-2x}$$

$$\sin x \cos 2x = \tfrac{1}{2} [\sin(3x) - \sin x]$$

$$y_p = A \cos x + B \sin x \text{ a } y_p = A \cos(3x) + B \sin(3x)$$