

Výsledky.

- 59) Ae^x , $\{A = 1/3\}$.
- 60) $(Ax + B)e^x$, $\{A = 1/3, B = -5/9\}$.
- 61) $x(Ax + B)e^x$, $\{B = 1/25, A = 1/10\}$.
- 62) Ax^3e^{-x} , $\{A = 1/6\}$.
- 63) $Ax^3 + Bx^2 + Cx + D$, $\{A = 1, C = -1, D = 0, B = -2\}$.
- 64) $(Ax^3 + Bx^2 + Cx + D)x^2$, $\{C = 8, B = -2, A = 3/5, D = -24\}$.
- 65) $x^2(Ax + B)e^{-x}$, $\{A = 1/6, B = -1/2\}$.
- 66) $(Ax^2 + Bx + C)e^{-x}$, $\{A = -1/2, B = -1, C = -1/2\}$.
- 67) $(Ax^2 + Bx + C)e^{-x}$, $\{C = 1/4, A = -1/2, B = -1/2\}$.
- 68) x^2Ae^{2x} , $\{A = 1/6\}$.
- 69) xAe^{2x} , $\{A = 1/25\}$.
- 70) $e^x(A \cos x + B \sin x)$, $\{A = 2/13, B = 3/13\}$.
- 71) $A \cos x + B \sin x$, $\{A = -1, B = -1\}$.
- 72) $e^{-x}(A \cos x + B \sin x)$, $\{B = 1, A = 0\}$.
- 73) $e^{2x}((Ax + B) \cos x + (Cx + D) \sin x)$, $\{C = 0, A = 1, B = -2, D = 0\}$.
- 74) $e^{3x}((Ax^2 + Bx + C) \cos 2x + (Dx^2 + Ex + F) \sin 2x)$,
 $\{B = 0, E = 1, D = 1, A = -1, F = -3/4, C = -3/4\}$.
- 75) $A \cos 2x + B \sin 2x$, $\{A = -\frac{1}{79}, B = 0\}$.
- 76) $A \cos 3x + B \sin 3x$, $\{B = -2/15, A = 1/15\}$.
- 77) $x(A \cos \sqrt{3}x + B \sin \sqrt{3}x)$, $\{B = 1/2\sqrt{3}, A = -1/6\sqrt{3}\}$.
- 78) $x(A \cos \omega x + B \sin \omega x)$, $\{B = \frac{a}{2\omega}, A = -\frac{b}{2\omega}\}$.
- 79) $xe^{-x}(A \cos 3x + B \sin 3x)$, $\{B = 0, A = -1/6\}$.
- 80) $xe^{-x}((Ax + B) \cos 3x + (Cx + D) \sin 3x)$, $\{C = 0, D = 1/3, A = 1/2, B = 0\}$.
- 81) $xe^{2x}(A \cos 2x + B \sin 2x)$, $\{B = 3/4, A = 1/4\}$.
- 82) $y_{p1} = Ax^2 + Bx + C$, $\{A = 1/4, B = 1/2, C = 3/8\}$; $y_{p2} = Ax^2e^{2x}$,
 $A = 1/2$.
- 83) $(\lambda - 1)(\lambda^2 + 4)$; $f = 20 + 20 \cos 2x$, $y_{p1} = A$, $A = -5$; $y_{p2} = Ax \cos 2x + Bx \sin 2x$, $\{A = -2, B = -1\}$.
- 84) $\{A = 1/12, B = 1/24\}$.
- 85) $f = \cos 3x + 3 \cos x$, $y_{p1} = A \cos 3x + B \sin 3x$, $\{A = -1/100, B = -3/100\}$; $y_{p2} = A \cos x + B \sin x$, $A = B = -3/4$.

86) $f = x^2 e^{-x} + x^3$, $y_{p1} = (Ax^2 + Bx + C)e^{-x}$, $\{A = 1, B = 4, C = 8\}$;
 $y_{p2} = Ax^4 + Bx^3 + Cx^2 + Dx$, $\{A = 1/4, B = -3, C = 24, D = -126\}$.

87) $f = x - x \cos 4x$; $y_{p1} = Ax + B$, $\{A = 1/16, B = 0\}$; $y_{p2} = (Ax + B) \cos 2x + (Cx + D) \sin 2x$, $\{A = -1/272, B = C = 0, D = 1/289\}$.

88) $f = e^x \cos x + e^{-x} \cos x$; $y_{p1} = e^x (A \cos x + B \sin x)$, $\{A = -1/2, B = 0\}$;
 $y_{p2} = e^{-x} (A \cos x + B \sin x)$, $\{A = 1/10, B = 1/5\}$.

89) $f = \sum_{k \geq 0} e^{-kx}$, $y_p = \sum_{k \geq 0} y_{pk}$, kde $y_{pk} = \frac{e^{-kx}}{(k^2 + 5k + 1)}$.

90) $f = \frac{2e^{-x}}{1+e^{-2x}} = 2 \sum_{k \geq 0} (-1)^k e^{-(2k+1)x}$, $y_p = \sum_{k \geq 0} y_{pk}$, kde $y_{pk} = (-1)^k \frac{2}{k^2+1} e^{-(2k+1)x}$.