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> restart
> EcuaUno := y''-4·y'+4·y=0
      EcuaUno :=  $\frac{d^2}{dx^2} y(x) - 4 \left( \frac{d}{dx} y(x) \right) + 4 y(x) = 0$  (1)
> SolGralUno := dsolve(EcuaUno)
      SolGralUno :=  $y(x) = \_C1 e^{2x} + \_C2 e^{2x} x$  (2)
> EcuaDos := y''+9·y=0
      EcuaDos :=  $\frac{d^2}{dx^2} y(x) + 9 y(x) = 0$  (3)
> SolGralDos := dsolve(EcuaDos)
      SolGralDos :=  $y(x) = \_C1 \sin(3 x) + \_C2 \cos(3 x)$  (4)
> EcuaTres := y'''-15·y''+75·y'-125·y=0
      EcuaTres :=  $\frac{d^3}{dx^3} y(x) - 15 \left( \frac{d^2}{dx^2} y(x) \right) + 75 \left( \frac{d}{dx} y(x) \right) - 125 y(x) = 0$  (5)
> SolGralTres := dsolve(EcuaTres)
      SolGralTres :=  $y(x) = \_C1 e^{5x} + \_C2 e^{5x} x + \_C3 e^{5x} x^2$  (6)
> EcuaCuatro := y''''-4·y''' + 8·y''-8·y'+4·y=0
      EcuaCuatro :=  $\frac{d^4}{dx^4} y(x) - 4 \left( \frac{d^3}{dx^3} y(x) \right) + 8 \left( \frac{d^2}{dx^2} y(x) \right) - 8 \left( \frac{d}{dx} y(x) \right) + 4 y(x) = 0$  (7)
> SolGralCuatro := dsolve(EcuaCuatro)
      SolGralCuatro :=  $y(x) = \_C1 e^x \sin(x) + \_C2 e^x \cos(x) + \_C3 e^x \sin(x) x + \_C4 e^x \cos(x) x$  (8)
> EcuaCinco := y''-7·y'+12·y=4·exp(2·x) + 5·x
      EcuaCinco :=  $\frac{d^2}{dx^2} y(x) - 7 \left( \frac{d}{dx} y(x) \right) + 12 y(x) = 4 e^{2x} + 5 x$  (9)
> SolGralCinco := dsolve(EcuaCinco)
      SolGralCinco :=  $y(x) = e^{4x} \_C2 + e^{3x} \_C1 + 2 e^{2x} + \frac{5}{12} x + \frac{35}{144}$  (10)
> restart
>

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