

```

[> restart
=> Ecuacion := y'' + 8 y' + 16 y = 2 exp(-4 x)
      Ecuacion :=  $\frac{d^2}{dx^2} y(x) + 8 \left( \frac{d}{dx} y(x) \right) + 16 y(x) = 2 e^{-4x}$  (1)
=> SolGral := dsolve(Ecuacion)
      SolGral :=  $y(x) = e^{-4x} \_C2 + e^{-4x} x \_C1 + x^2 e^{-4x}$  (2)
=> Comprobacion := eval(subs(y(x) = rhs(SolGral), Ecuacion))
      Comprobacion :=  $2 e^{-4x} = 2 e^{-4x}$  (3)
=> restart
=> Ecua := y'' + 4 y = 6 cos(2 x)
      Ecua :=  $\frac{d^2}{dx^2} y(x) + 4 y(x) = 6 \cos(2 x)$  (4)
=> SolGral := dsolve(Ecua)
      SolGral :=  $y(x) = \sin(2 x) \_C2 + \cos(2 x) \_C1 + \frac{3}{4} \cos(2 x) + \frac{3}{2} \sin(2 x) x$  (5)
=>
=>

```