```
> restart
> Ecuacion := y''-3 y=-4·x^2·cos(3 x)
```

$$Ecuacion := \frac{d^2}{dx^2} y(x) - 3\,y(x) = -4\,x^2 \cos(3\,x) \quad (1)$$

```
> SolucionGeneral := dsolve(Ecuacion)
```

$$SolucionGeneral := y(x) = e^{\sqrt{3}\,x}\_C2 + e^{-\sqrt{3}\,x}\_C1 + \frac{1}{3} x^2 \cos(3\,x) - \frac{1}{9}\cos(3\,x) - \frac{1}{3}\sin(3\,x)\,x \quad (2)$$

```
> evalf(%, 3)
```

$$y(x) = e^{1.73x}\_C2 + e^{-1.73x}\_C1 + 0.333\,x^2 \cos(3.\,x) - 0.111\cos(3.\,x) - 0.333\sin(3.\,x)\,x \quad (3)$$

```
> Comprobacion := eval
```

$$Comprobacion := 0 = 0 \quad (4)$$

```
>
>
>
>
```