> *restart*

> *Ecuacion* := *diff* $(z(x, y), x\$2) + 5 \cdot diff(z(x, y), x, y) + 6\,diff(z(x, y), y\$2) = 0$

$$Ecuacion := \frac{\partial^2}{\partial x^2}\,z(x, y) + 5\left(\frac{\partial^2}{\partial y\,\partial x}\,z(x, y)\right) + 6\left(\frac{\partial^2}{\partial y^2}\,z(x, y)\right) = 0 \tag{1}$$

> *SolucionGeneral* := *pdsolve*(*Ecuacion*)

$$SolucionGeneral := z(x, y) = \_F1(y - 3\,x) + \_F2(y - 2\,x) \tag{2}$$

> *SolucionParticular* := $z(x, y) = 20 \cdot \exp(y - 3\,x) + 30 \cdot \cos(y - 2\,x)$

$$SolucionParticular := z(x, y) = 20\,e^{y - 3x} + 30\,\cos(-y + 2\,x) \tag{3}$$

> *Comprobacion*$_1$ := *simplify*(*eval*(*subs*($z(x, y) = rhs$(*SolucionGeneral*), *Ecuacion*)))

$$Comprobacion_1 := 0 = 0 \tag{4}$$

> *Comprobacion*$_2$ := *simplify*(*eval*(*subs*($z(x, y) = rhs$(*SolucionParticular*), *Ecuacion*)))

$$Comprobacion_2 := 0 = 0 \tag{5}$$

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