13. $F_1\left(x, \dfrac{\partial w}{\partial x}\right) + e^{\lambda w} F_2\left(y, \dfrac{\partial w}{\partial y}\right) = 0.$

Complete integral:

$$w(x,y) = \varphi(x) + \psi(y).$$

The functions $\varphi = \varphi(x)$ and $\psi = \psi(y)$ are determined by solving the ordinary differential equations

$$e^{-\lambda\varphi} F_1\bigl(x, \varphi'_x\bigr) = C, \qquad e^{\lambda\psi} F_2\bigl(y, \psi'_y\bigr) = -C,$$

where C is an arbitrary constant.

Reference

Polyanin, A. D., Zaitsev, V. F., and Moussiaux, A., *Handbook of First Order Partial Differential Equations*, Taylor & Francis, London, 2002.

