10. $\dfrac{\partial w}{\partial x} + f(x)g(y)h(w)\dfrac{\partial w}{\partial y} = 0.$

General solution:

$$\int \frac{dy}{g(y)} - h(w)\int f(x)\,dx = \Phi(w),$$

where $\Phi(w)$ is an arbitrary function.

Reference

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