



21. $y''_{xx} = f(y)y'_x$.

Solution:

$$\int \frac{dy}{F(y) + C_1} = C_2 + x, \quad F(y) = \int f(y) dy,$$

where C_1 and C_2 are arbitrary constants.

Reference

Polyanin, A. D. and Zaitsev, V. F., *Handbook of Exact Solutions for Ordinary Differential Equations, 2nd Edition*, Chapman & Hall/CRC, Boca Raton, 2003.