



46. $y''_{xx} = x f(y) (y'_x)^3$.

Taking y to be the independent variable, we obtain a linear equation with respect to $x = x(y)$:
 $x''_{yy} = -f(y)x$.

Reference

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