40. $y'_x = y f(e^{\alpha x} y^m)$.

The substitution $z = e^{\alpha x} y^m$ leads to a separable equation: $z'_x = \alpha z + mz f(z)$.

Reference

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