

37.
$$[f(y) + amx^ny^{m-1}]y'_x + g(x) + anx^{n-1}y^m = 0$$
.

Solution:
$$\int f(y) \, dy + \int g(x) \, dx + ax^n y^m = C.$$

Reference

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

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http://eqworld.ipmnet.ru/en/solutions/ode/ode0137.pdf