

29.
$$xy_{xx}'' + (n+1)y_x' = x^{n-1}f(yx^n)$$
.

The transformation $\xi = x^n$, $w = yx^n$ leads to an autonomous equation of the form 3.1: $n^2w_{\xi\xi}'' = f(w)$.

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/ode0329.pdf