

3. 
$$y(2x) - 2y^2(x) + a = 0$$
.

This is a special case of equation 3, Subsection 2.3.

Particular solutions with a = 1:

$$y(x) = \cos(Cx)$$
,

$$y(x) = \cosh(Cx),$$

where  ${\cal C}$  is an arbitrary constant.

## Reference

**Polyanin, A. D. and Manzhirov, A. V.,** *Handbook of Integral Equations: Exact Solutions (Supplement. Some Functional Equations)* [in Russian], Faktorial, Moscow, 1998.

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