

9. 
$$y(x^2) - ay^2(x) = 0$$
.

Solution:

$$y(x) = \frac{1}{a}x^C,$$

where C is an arbitrary constant. In addition, the function  $y(x) \equiv 0$  is a continuous particular solution.

## 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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