Is it Separable?

Quiz: (Is it Separable?.)
Is $y' + xy = x$ separable?

Choices:

a) Yes.

b) No.

Answer: Well, $y' = x - xy = x(1 - y)$ so $dy/(1 - y) = xdx$: Yes, the equation is separable. We could go on to solve this, but you can do that on your own.

MIT OpenCourseWare
http://ocw.mit.edu

18.03SC Differential Equations
Fall 2011

For information about citing these materials or our Terms of Use, visit: http://ocw.mit.edu/terms.