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## MA 265 Quiz 2

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1. Determine the differential equation giving the slope of the tangent line at the point  $(x, y)$  for the given family of curves

$$xe^y = c.$$

- a)  $\frac{dy}{dx} = xy e^{y-1}$
- b)  $\frac{dy}{dx} = e^y$
- c)  $\frac{dy}{dx} = e^y(1 - x)$
- d)  $\frac{dy}{dx} = -\frac{1}{x}$
- e) None of the above.

Answer: D