

(check



$$\frac{\partial}{\partial y} \left(-\frac{1}{x} \cos xy \right)$$

$$= -\frac{1}{x} \frac{\partial}{\partial xy} (\cos xy)$$

chain rule



$$= -\frac{1}{x} (-\sin xy) \frac{\partial}{\partial y} (xy)$$

$$= \sin xy$$