

Domains problem

$$f(x, y) = \frac{x^2}{y} + e^{y-x}$$

$$\frac{\partial a}{\partial x} = 2x \rightarrow a = x^2 \quad \frac{\partial c}{\partial a} = \frac{2x}{y} \rightarrow c = \frac{a^2}{y}$$

$$\frac{\partial b}{\partial x} = -1 \quad \frac{\partial c}{\partial y} = -\frac{x^2}{y^2} \rightarrow c = -\frac{a^2}{y}$$

$$\frac{\partial b}{\partial y} = +1 \rightarrow b = y - x$$

$$d = e^b \quad \frac{\partial d}{\partial b} = e^b$$

$$\frac{\partial f}{\partial x} = \frac{2x}{y} - e^{y-x} \quad \frac{\partial e}{\partial c} = 1$$

$$d = c + d$$

$$\frac{\partial e}{\partial d} = 1$$

$$\frac{\partial f}{\partial y} = -\frac{x^2}{y^2} + e^{y-x}$$

~~x~~

