

$$\cdot f(x) = \underline{-\log x - \log y}$$

$$\cdot g(x) = \underline{x + y - 1 = 0}$$

$$\begin{aligned} \cdot \frac{\partial f}{\partial x} + \frac{\partial}{\partial x} \lambda \cdot g(x) &= -\frac{1}{x} + \frac{\partial}{\partial x} \lambda x + \lambda y - \lambda \\ &= \underline{-\frac{1}{x} + \lambda = 0} \end{aligned}$$

$$\cdot \frac{\partial f}{\partial y} + \frac{\partial}{\partial y} \lambda \cdot g(x) = \underline{-\frac{1}{y} + \lambda = 0}$$

$$\cdot \frac{\partial f}{\partial \lambda} + \frac{\partial}{\partial \lambda} \lambda \cdot g(x) = \underline{x + y - 1 = 0}$$

$$\cdot \lambda = \frac{1}{x}, \quad \lambda = \frac{1}{y}, \quad x + y = 1$$

$$\cdot \lambda = \frac{1}{x}, \quad \lambda = \frac{1}{y}, \quad y = -x + 1$$

$$\cdot \frac{1}{x} = \frac{1}{y}, \quad y = -x + 1$$

- $\frac{1}{x} = \frac{1}{-x+1}$

- $x = -x + 1$

$$\Rightarrow 2x = 1$$

$x = \frac{1}{2}$	,	$y = \frac{1}{2}$	,	$\lambda = 2$
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