

Problem statement Suppose that $t = f(u, v, w)$, with f differentiable, and that $u = x - y$, $v = y - z$, and $w = z - x$.

a) Use the Chain Rule to compute $\frac{\partial t}{\partial x}$.

b) Show that $\frac{\partial t}{\partial x} + \frac{\partial t}{\partial y} + \frac{\partial t}{\partial z} = 0$.