

find $\frac{\partial r}{\partial x}$, $\frac{\partial r}{\partial y}$, $\frac{\partial r}{\partial z}$

$$1.) r = uvw - u^2 - v^2 - w^2; \quad u = y + z, \quad v = x + z, \quad w = x + y$$

$$2.) r = \frac{p}{q} + \frac{q}{s} + \frac{s}{p}; \quad p = e^{yz}, \quad q = e^{xz}, \quad s = e^{xy}$$