Q. 1 Use the chain rule to find the values of $\left.\frac{\partial z}{\partial r}\right|_{r=2, \theta=\pi / 6}$ and $\left.\frac{\partial z}{\partial \theta}\right|_{r=2, \theta=\pi / 6}$ if $z=x y e^{x / y}$ where $x=r \cos \theta$ and $y=r \sin \theta$.

