

Quiz 4
18 June 2024

Answer the questions in the spaces provided. **Show all of your work and circle the answer you would like to have graded for each question.**

Name: _____

1. Let $w = 2xy^2z^3$ with $x = r \cos t$, $y = t \sin r$, and $z = e^{rt}$. Find $\frac{\partial w}{\partial r}$ when $(r, t) = (1, 0)$.

2. Find the tangent plane to the surface $\sqrt{xy + xz + yz} = 0$ at the point $(0, 2, 2)$.