

Math 3298 Worksheet 12: Review of curves and surfaces.

Group members (2 to 4): _____

- (1) Consider the curve $\vec{r}(t) = (t, t^2, t^3 + 1)$. Find the unit tangent vector when $t = 1$.

- (2) The above curve lies on the surface $z = xy + 1$. Find the equations for (a) the tangent plane at $\vec{r}(1)$ and (b) the normal line to the surface at that point.