

Quiz 2

Time: 15 minutes

1. Compute the unit tangent vector, and principal normal of the helix curve

$$\mathbf{r}(t) := (\cos(t), \sin(t), t).$$

2. Compute the length of the helix for $0 \leq t \leq 2\pi$.

Bonus: Write an integral for the length of the graph of $y = x^2$ from $x = 0$ to $x = 1$.

Each problem is worth 5pts.