

### 10.3 - Tangents, Normal, Binormal

If  $\vec{r}(t) = 2 \cos t \hat{i} + 2 \sin t \hat{j} + 3t \hat{k}$ , find  $\hat{T}$ ,  $\hat{N}$ , and  $\hat{B}$ . Sketch  $\hat{T}$ ,  $\hat{N}$ , and  $\hat{B}$  when  $t = \frac{3\pi}{2}$ .

