

$$\mathbf{r}(t) = e^{t^3} \mathbf{i} - \mathbf{j} + \ln(1 + 5t) \mathbf{k} \quad \Rightarrow \quad \mathbf{r}'(t) = 3t^2 e^{t^3} \mathbf{i} + \frac{5}{1 + 5t} \mathbf{k}$$