$V = xy^2\hat{i} + zy^2\hat{j} + xz^2\hat{k}$ $\Rightarrow \nabla V =$ → here is some mistake

Let $r(t) = e^t\hat{i} + 2\sin t + 1\hat{j} + (t - \cos t)\hat{k}$

tangent to $r(t) = r'(t) = e^t\hat{i} + \hat{j}(2\cos t) + \hat{k}(1 + \sin t)$

$r'(0) = \hat{i} + 2\hat{j} + \hat{k} = \vec{v}$ (say)

$\hat{v} = \dfrac{\hat{i} + 2\hat{j} + \hat{k}}{\sqrt{6}}$

Direction Derivative $= (\nabla V \cdot \hat{v})_{(1,1,-1)}$

$=$