Question 1  Given a path $c(t)$ in $\mathbb{R}^n$, its derivative $c'(t)$ represents a tangent vector to the corresponding curve at all values of $t$ where

A. the derivative $c'(t)$ exists.

B. the derivative $c'(t)$ is continuous.

*C. the derivative $c'(t)$ exists and is not zero.

D. $c'(t)$ is a unit vector.

E. both B and C.
Question 2  Given a function $f(x, y, z)$, the gradient of $f$ at the point $(a, b, c)$ is

A. $Df(a, b, c)$, the derivative of $f$ at $(a, b, c)$.

B. A vector that is normal to the level surface $f(x, y, z) = f(a, b, c)$.

C. A vector that points in the direction of greatest increase of $f(x, y, z)$ from $(a, b, c)$.

D. both B and C.

*E. A, B and C.