



Question

If $x(t)^2 + y(t)^2 + z(t)^2 = 1$ for all t and we differentiate both sides with respect to t , what do we get?

- A. $2x(t)x'(t) + 2y(t)y'(t) + 2z(t)z'(t) = 1$
- B. $2x(t) + 2y(t) + 2z(t) = 0$
- C. $2x(t) + 2y(t) + 2z(t) = 1$
- D. $2x(t)x'(t) + 2y(t)y'(t) + 2z(t)z'(t) = 0$