Assume the position

A particle's position is given by the function

$$x(t) = 4t^3 - 3t^2$$

1. Where is the particle a time t = 3 s?

2. What is the equation for the velocity?

3. What is the velocity at t = 3 s ?

4. What is the equation for the acceleration?

5. What is the acceleration at t = 3 s?

6. Which of the graphs to the right would be consistent with the acceleration?

A)

B)

C)

D)

E)