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Name:

Quiz#1

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## **Code 001**

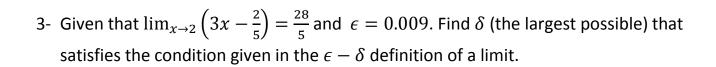
Serial No:

- 1- The displacement (in meter) of a particle moving in a straight line is given by  $s(t)=3t^2-4t+1$ , where t is measured (in seconds).
  - a) Find the average speed over the time interval [0, 5].

b) Use limits to find the instantaneous speed of the particle when t=3.

2- Evaluate the limit, if it exists

$$\lim_{x \to 1/2} \left( \frac{2}{2x-1} - \frac{3}{2x^2 + x - 1} \right).$$



4- Use Sandwich Theorem, to find

$$\lim_{x\to 0} \left(2\pi - x + 5x^2 \cdot \sin\frac{\pi}{x}\right).$$