

$$s(t) = t^3 - 8t^2 + 20t - 16$$

- a. Find the displacement during the first 2 seconds.
- b. Find the average velocity during the first 2 seconds.
- c. Find the instantaneous velocity at any time t .
- d. Find the acceleration of the particle at any time t .
- e. When is the particle at rest?
- f. Describe the motion of the particle.
- g. Find the speed of the particle when the acceleration is zero.

$$s(t) = \frac{1}{3}t^3 - 2t^2 + 3t$$

- a. Find the displacement during the first 2 seconds.
- b. Find the average velocity during the first 2 seconds.
- c. Find the instantaneous velocity at any time t .
- d. Find the acceleration of the particle at any time t .
- e. When is the particle at rest?
- f. Describe the motion of the particle.
- g. Find the speed of the particle when the acceleration is zero.