

10. Given $s(t)=2t^{3}-15t^{2}+36t+2, for t\geq 0$ for a particle, where *s* is in meters and *t* is in seconds.

 a. Find the velocity and acceleration as functions of *t.*

 b. Find the acceleration after 1 second.

 c. Find the acceleration at the instants when the velocity is zero (particle not in motion).

11. Given $s\left(t\right)=t^{4}-4t^{3}+2$ , where *s* is in meters and *t* is in seconds.

 a. Find the times at which the acceleration is zero.

 b. Find the displacement and velocity at these times.