Motion problems

Obj:12A(10.8) Interpret and use an integral of velocity with respect to time as distance travelled, and an integral of acceleration with respect to time as velocity

1) The acceleration of a function a(t) (in m/s^2) and the initial velocity v(0) are given for a particle moving along a line.  
a(t) = 2t + 5 , v(0) = -6  
Find the velocity v(t) at time (t=4 s).

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math 2)A proton moves in an electric field such that its velocity

where *t* is in seconds. find the displacement. when *t* = 0, *s* = 0. ===============================================

***3)An object moves along a coordinate line with velocity***

***.* Find the displacement at t=4 where s(0)=2 .**

***4)An object moves along a coordinate line with acceleration***

***.* Find the displacement where s(0)=5 and .**

5)A proton moves in an electric field such that its acceleration

*a* (t)= -20(1+2*t*)-2, where *t* is in seconds.

Find the velocity as a function of time if *v* = 30 cms-1 when *t* =0