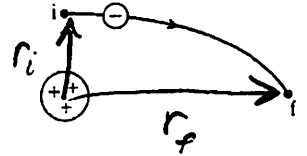


(2pts) 1.

An electron moves along the trajectory from i to f.

a. Does the electric potential energy increase, decrease, or stay the same?



For pt. charges  $U = \frac{kq_1q_2}{r} < 0$  for charges  
of opp. sign.  $\therefore$  P.E. gets less neg. (i.e. increases)  
as neg. charge moves from i to f.

b. Is the electron's speed at f greater than, less than, or equal to its speed at i?

If P.E. increases, the K.E. decreases.  
 $\therefore$  final speed is less than the initial speed.