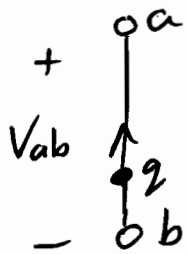


**PP1.4** To move charge  $q$  from a point  $b$  to a point  $a$  requires 25 J. Find the voltage drop  $v_{ab}$  (the voltage at  $a$  positive with respect to  $b$ ) if:  
(a)  $q = 5$  C, (b)  $q = -10$  C.



use (1.3)  $V_{ab} = \frac{dw}{dq}$

$\hookrightarrow V_{ab} = \frac{\Delta W}{\Delta q}$

a)  $V_{ab} = \frac{25 \text{ J}}{5 \text{ C}} = \underline{\underline{5 \text{ V}}}$

b)  $V_{ab} = \frac{25 \text{ J}}{-10 \text{ C}} = \underline{\underline{-2.5 \text{ V}}}$