

- 1.8** Five coulombs of charge pass through the element in Fig. P1.8 from point *A* to point *B*. If the energy absorbed by the element is 120 J, determine the voltage across the element.

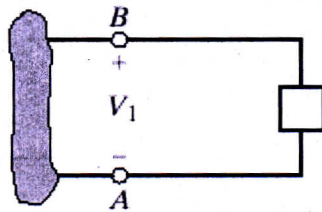


Figure P1.8

**SOLUTION:**

$$W = -V_1 Q$$

$$V_1 = -\frac{W}{Q}$$

$$V_1 = -\frac{120}{5}$$

$$V_1 = -24\text{V}$$