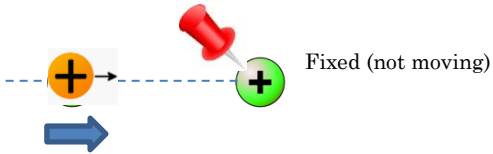
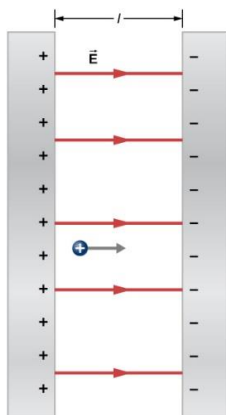
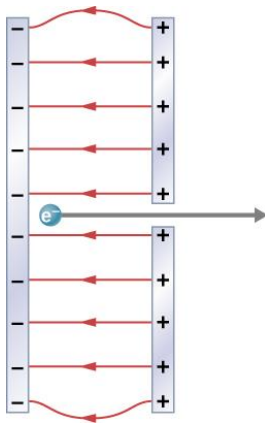


## Electric Potential Energy Starter Examples:

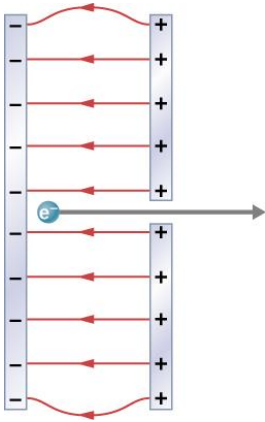
1. How much **work** is required to move a charge of  $4 \mu\text{C}$  from a point  $2\text{m}$  away to a point  $0.5 \text{m}$  away from a point charge of  $60 \mu\text{C}$ ?



2. Calculate:
  - a) The final **speed** of an **electron** accelerated from rest through  $10000\text{V}$  potential difference. Watch you signs
  - b) The final speed of a **proton** accelerated through a  $-10000\text{V}$  potential difference.



3. Through what **potential difference** is needed to accelerate an electron to  $1.80 \times 10^7$  m/s?



4. What is the **electric potential** at point P in the diagram to the right?

