

Checkpoint 2

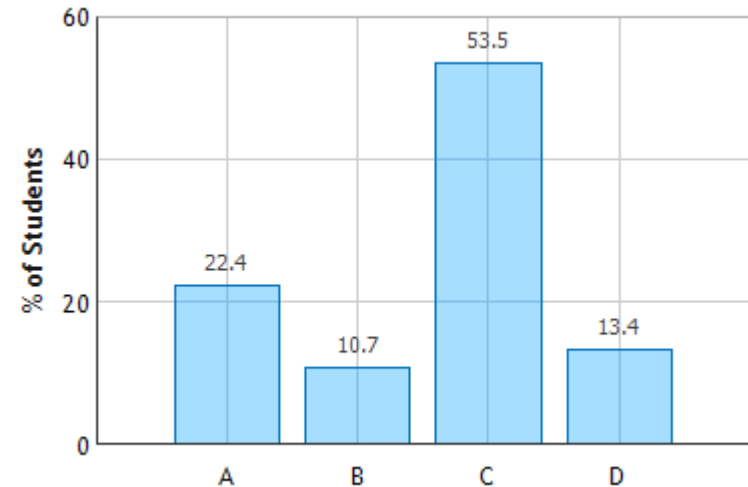


If the electric field is zero in a region of space, what does that tell you about the electric potential in that region?

- A) The electric potential is zero everywhere in this region.
- B) The electric potential is zero at at least one point in this region.
- C) The electric potential is constant everywhere in this region.
- D) There is not enough information given to distinguish which of the above answers is correct.

Remember the definition

$$\Delta V_{A \rightarrow B} = - \int_A^B \vec{E} \cdot d\vec{l}$$



$\vec{E} = 0 \quad \longrightarrow \quad \Delta V_{A \rightarrow B} = 0 \quad \longrightarrow \quad V \text{ is constant!}$