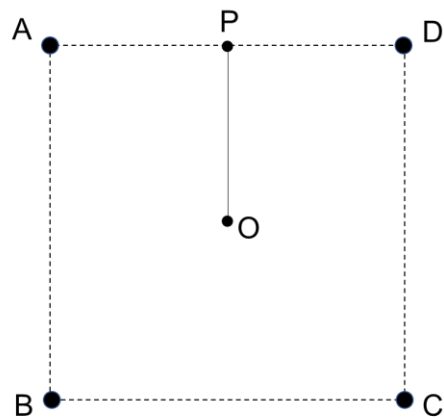


20

Four point charges are at the corners of a square ABCD. The point charges A and B are negatively charged and the point charges C and D are positively charged. The magnitude of the charges are the same. A proton is brought from point P to point O in a straight line by an external force without any change in speed.

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Which row about the change in electric potential energy of the system and the work done by the external force is correct?

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change in electric potential energy

work done by the external force

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**A**

increase

positive

---

**B**

increase

negative

---

**C**

decrease

negative

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**D**

no change

zero