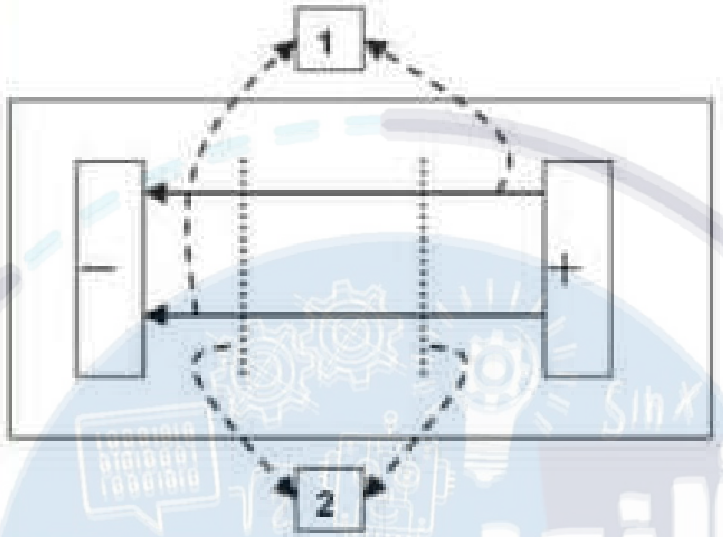
In the given figure, the lines labeled by 1 and 2 are,

respectively:



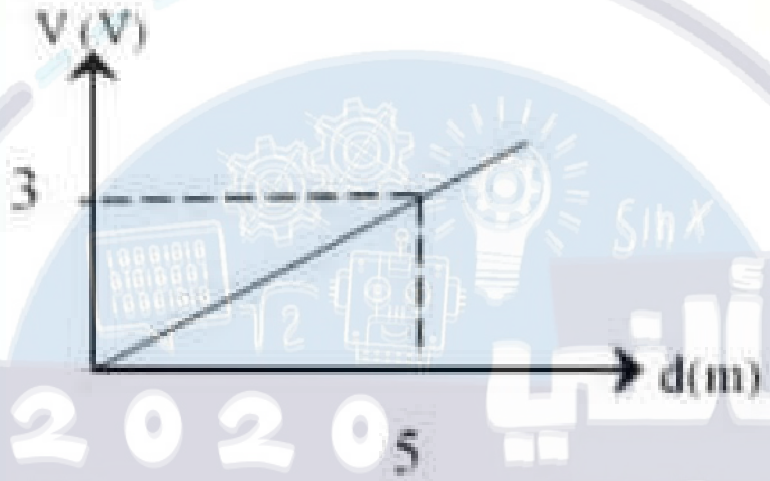
Select one:

- a. Electric field lines and equipotential lines respectively
- b. Electric Field lines
- c. Equipotential lines
- d. Equipotential lines and electric field lines respectively

The Equipotential lines in the **Electric Field Mapping** Experiment

- Connect points of the same potential
- Connect points of the same potential and perpendicular to electric field lines
- Are perpendicular to electric field lines
- Are always straight lines and parallel to each other

Depending on the graph, the value of electric field (in V/m) is:



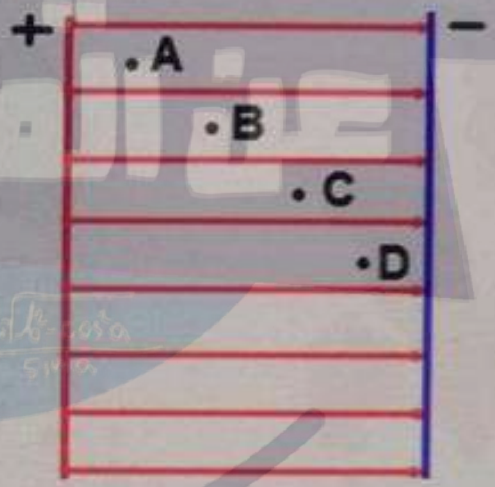
Select one:

- a. 1.67
- b. 0.6
- c. 3.0
- d. 15.0

The Electric Field Mapping Experiment:

An electric field is created by two parallel plates. Which of the following points corresponds to the higher electric potential?

a) A
b) B
c) C
d) D
e) The electric potential is the same at all points.

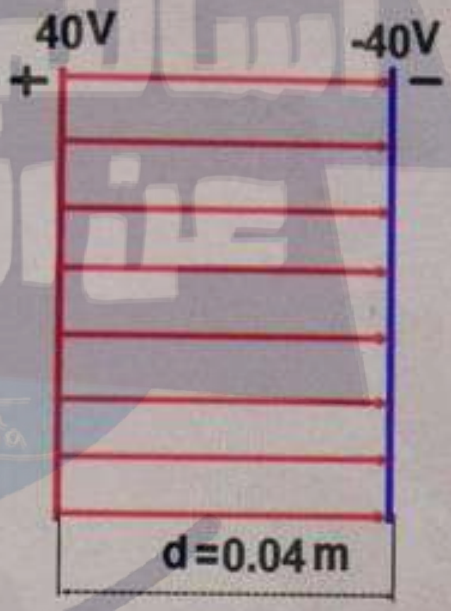


Select one:

The Electric Field Mapping Experiment:

A uniform electric field is created by two parallel plates separated by a distance of 0.04 m. What is the magnitude of the electric field established between the plates?

a) 20 V/m
b) 200 V/m
c) 2,000 V/m
d) 4,000 V/m
e) 0 V/m

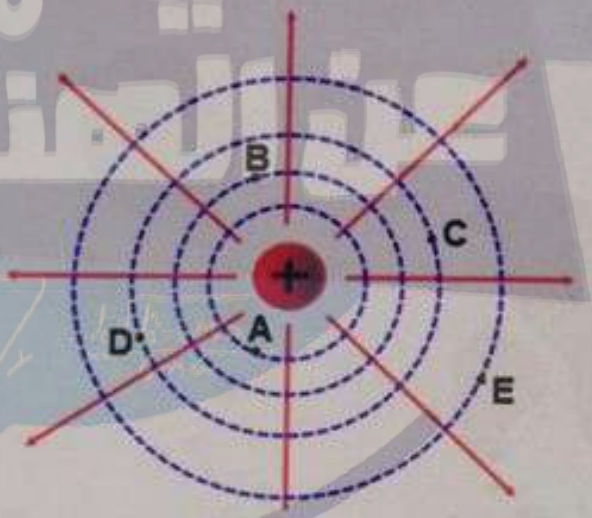


Select one:

The Electric Field Mapping Experiment:

An electric field due to a positive charge is represented by the diagram. Which of the following points has higher potential?

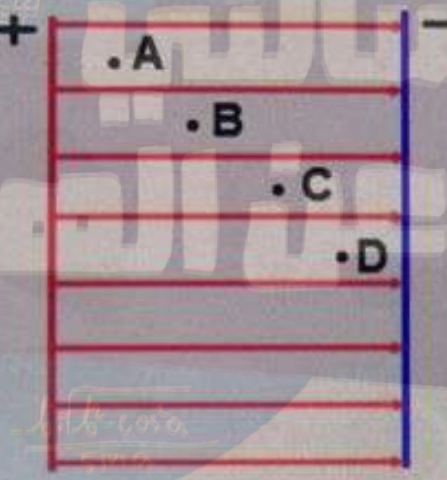
a) A
b) B
c) C
d) D
e) E



The Electric Field Mapping Experiment:

An electric field is created by two parallel plates. At which of the following points is the electric field the strongest?

a) A
b) B
c) C
d) D
e) The electric field is the
f) same at all points



The Electric Field Mapping Experiment:

An electric field due to a positive charge is represented by the diagram. At which of the following points is the electric field strongest in magnitude?

a) A
b) B
c) C
d) D
e) E

Select one:

In the Electric Field Mapping experiment, which of the following is done ?

- a. Measuring how the strength of an electrical field changes as the strength of two charges changes
- b. Measure the distance between two known electrical charges
- c. Mapping the field lines between two charged electrical conductors
- d. Measuring how the strength of an electric field influences the local magnetic field

In the Electric Field Mapping experiment, the Equipotential lines are

- a. Always Perpendicular to electric field lines
- b. Always Parallel with electric field lines
- c. Equipotential lines and electric field lines are the same thing
- d. Equipotential lines and electric fields lines can have any relations to each other

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Time left 0:28:31

Question 1

Not yet answered

Marked out of 2.5

Flag question

In the Electric Field Mapping experiment, the potential difference between the anode and cathode is 30 Volt and the distance between them is 20 cm. You are told that the potential difference between two equipotential lines is 3 Volt. Then, the distance (in cm) between these two lines is:

- a. 5
- b. 2
- c. 3
- d. 6
- e. 4.5

Clear my choice

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Time left 0:21:14

Question **4**

Not yet answered

Marked out of 2.5

Flag question

The sliding contact is at the position labeled P along the rheostat in the Electric Field Mapping experiment. The galvanometer reads zero when the tip of the pointer is placed vertically in the solution between the anode and cathode at the point labeled P_1. If the pointer next is placed at the point P_2 in the solution and the galvanometer's pointer deflects, this means that:

- a. P_1 and P_2 are not at the same potential and the potential difference between P and P_1 is zero.
- b. There is an electric field pointing from P_2 to P_1.
- c. The potential difference between the anode and P_1 is zero.
- d. The potential difference between P_1 and P_2 is zero.
- e. There is a current in the solution from P_1 to P_2.

Clear my choice

Time left 0:26:16

Question 6

Not yet answered

Marked out of 4.00

Flag question

In the Electric Field Mapping experiment, the anode is placed along the y-axis with its center at x = 0 cm, parallel to the cathode with its center at x = 20 cm, and the potential difference between them is 25 V. The cathode and anode each have a length of 20 cm. Then the potential difference (in V) as you go from the point with coordinates (6 cm, 5 cm) to the point with coordinates (10 cm, -5 cm) is:

- a. 12.5
- b. -10
- c. 5
- d. -5
- e. -12.5

Clear my choice

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