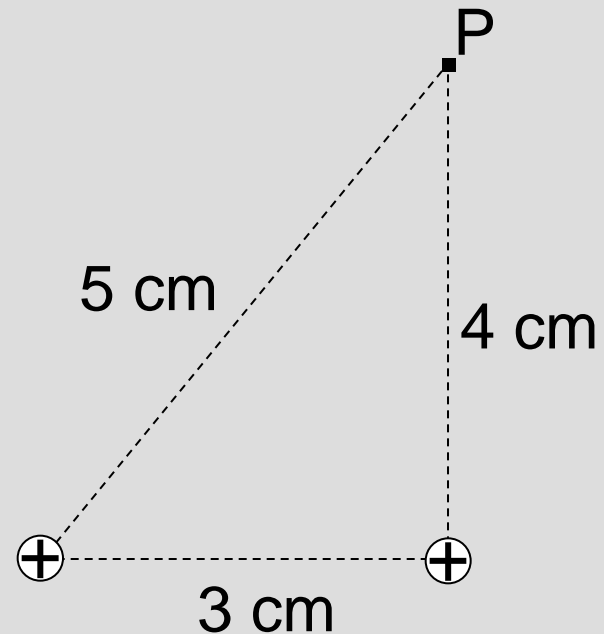


Given a uniform rightward electric field, if we put a positive point charge in it, the electric field is changed. The new electric field, at each point in space, is the vector sum of the original electric field vector at that point in space and the electric field vector, at that point in space, due to the point charge. So why would the point charge experience a constant acceleration to the right?

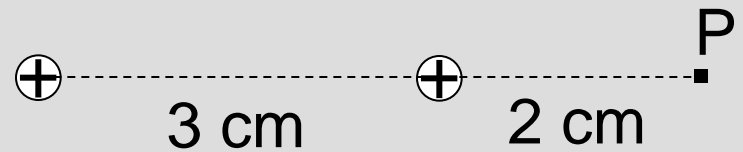
- a) It wouldn't. The new total electric field is not uniform.**
- b) The point charge would be a test charge. A test charge does not produce an electric field.**
- c) The electric field due to a positive point charge, does not exert a force on the positive point charge itself.**

In calculating the electric field at point P due to the two positive point charges, what distance does one not substitute into the expression for the electric field due to a point charge.



- a) 3 cm
- b) 4 cm
- c) 5 cm

In calculating the electric field at point P due to the two positive point charges, what distance does one not substitute into the expression for the electric field due to a point charge.



- a) 2 cm**
- b) 3 cm**
- c) 5 cm**

In calculating the electric field at point P due to the two point charges, what distance does one not substitute into the expression for the electric field due to a point charge.



- a) 1 cm
- b) 2 cm
- c) 4 cm

At which point in space is the magnitude of the electric field due to the two particles, having one and the same charge, greater?



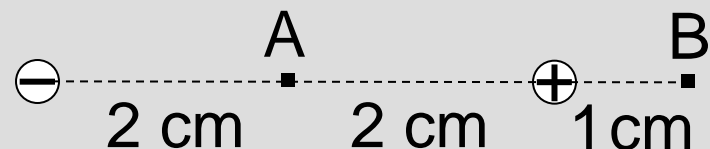
- a) Point A**
- b) Point B**

At which point in space is the magnitude of the electric field due to the two particles, having equal but opposite charge, greater?



- a) Point A**
- b) Point B**

At which point in space is the magnitude of the electric field due to the two point charges, having equal but opposite charge, greater?



a) Point A

b) Point B

A positively charged particle is fixed at a point in space by means not specified. A second positively charged particle is released from rest at a point in the vicinity of the first one. Does the second particle experience constant acceleration subsequent to its release?

a) Yes.

b) No.

Particle number 2, having charge $+0.001\text{ C}$, is due north of particle number 1 which has charge -0.001 C . Which of the following best characterizes the direction of the electric field at a point in space that is due east of particle number 1?

- a) Northeasterly**
- b) Southeasterly**
- c) Southwesterly**
- d) Northwesterly**