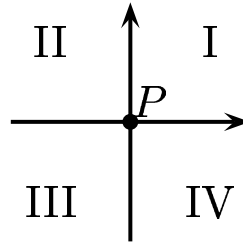
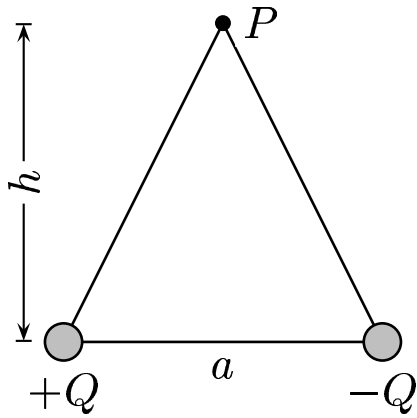


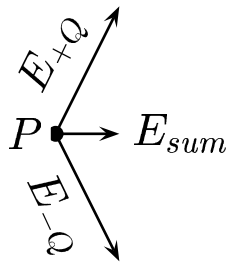
Two point charges of equal magnitude are a distance of a apart and are located on the x -axes.



Determine the direction of the electric field at a point P located on a perpendicular bisector of a a distance h away from the x -axes.

- A) The direction of \vec{E} is in the I quadrant.
- B) The direction of \vec{E} is in the II quadrant.
- C) The direction of \vec{E} is in the III quadrant.
- D) The direction of \vec{E} is in the IV quadrant.
- E) The direction of \vec{E} is along the x -axes or y -axes.

Coulomb's law is $\vec{E} = k \frac{Q}{r^2} \hat{r}$.



Therefore the direction of electric field \vec{E}_{sum} at point P lies along the positive x -axes.

Answer **E**.