Q is at the origin, +4Q is on the positive x-axis a distance a from the origin, and −3Q is on the positive y-axis a distance a from the origin.

Determine which quadrant contains the electric force on the charge +Q at the bottom left-hand corner (at the origin).
A) I B) II C) III D) IV

Coulomb’s law is \( \vec{F}_{AB} = k \frac{Q_A Q_B}{r^2} \hat{r}_{AB} \), which tells us that unlike charges attract and like charges repel.

Answer B.

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