$Q$ 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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