

Source: [KBhPHYS201ColoumbsLaw](#)

1 | And now, a Guided Problem Solve

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Notice! This one is a little different because there are three charges.

We could see that, because of the fact that Q_2 is closer to Q_3 than Q_1 is and the two particles are pulling in different directions, we could infer that $||F_{32}||$ is larger than $||F_{31}||$. Because of this, we could find that Q_3 will have a net force “to the left” — in F_{32} ’s direction.

And, because of that, we know that Q_3 will be accelerating towards the left. But **Notice!**, whenever Q_3 moves towards the left, the distances between the particles changed, meaning the force acting upon Q_3 changes! Meaning, Q_3 ’s acceleration “to the left” is not constant. Unfortunately, then, no equation of kinematics for us :(.