Problem discussed in the videos:

Video (5)-(8)

(A) Particle 0, with charge=q_0, is located at the origin. Particle 1, with charge=q_1, is located at $(0,d_1,0)$. What is the force exerted by particle 1 on particle 0?

(B) Particle 2, with charge=$-q_2$, is located at $(0,d_2,0)$. What is the net force on particle 0 from particles 1 and 2?

(C) What should the ratio of d_1 to d_2 be in order for there to be no net force on particle 0 from particles 1 and 2?

(D) Particle 3, with charge=$+q_3$, is located at $(0,d_2,d_2)$. What is the force on particle 0 from particle 3? Express your answer in terms of $q_0, q_3, d_2, \hat{x}, \hat{y}, \hat{z}$.