

Answer on question #62231, Physics / Other

Question two charges each 2uC , 3uC located at point A (2,1,2) and B (3,2,5) specify the coulomb force on charge in B!

Solution Square of distance between points is

$$d^2 = (3 - 2)^2 + (2 - 1)^2 + (5 - 2)^2 = 11$$

So, the force is

$$F = k \frac{q_1 q_2}{d^2} = 9 \cdot 10^9 \frac{2 \cdot 10^{-6} \cdot 3 \cdot 10^{-6}}{11} \approx 4.9 \cdot 10^{-3} N$$