SP211
Quiz 1 8 Aug. 2015

For each of the following questions please write the most correct answer in using CAPITAL LETTERS in the space provided.

Question 1
You have two identical conducting spheres labeled A and B. Initially, sphere A initially has a charge of $+15\mu C$ and sphere B has a charge of $-17\mu C$. If the spheres are brought into contact with each other what is the final charge of sphere A?

A) $+2\mu C$
B) $+1\mu C$
C) $0\mu C$
D) $-1\mu C$
E) $-2\mu C$

Answer: D

Question 2
Three charges, two positive and one negative, are placed on a line as shown below

What is the magnitude and direction of the net force acting on the negative charge?

A) $\frac{kQ^2}{d^2}$ to the right
B) $\frac{kQ^2}{d^2}$ to the left
C) $\frac{kQ^2}{2d^2}$ to the right
D) $\frac{kQ^2}{2d^2}$ to the left
E) the net force is zero

Answer: D