1) If the distance between two point charges is tripled, the mutual force between them will be changed by what factor?

a. 9.0
b. 3.0
c. 0.33
d. 1/9

2) If the size of the charge value is tripled for both of two point charges maintained at a constant separation, the mutual force between them will be changed by what factor?

a. 9.0
b. 3.0
c. 0.33
d. 1/9

3) The constant k_e, which appears in Coulomb's law formula, is equivalent dimensionally to which of the following?

a. $N \times m/C$
b. N/C
c. $N \times m^2/C^2$
d. N/C^2

4) Two equal charges, each Q, are separated by some distance. What third charge would need to be placed half way between the two charges so that the net force on each charge would be zero?

a. -Q
b. -Q/2
c. -Q/4
d. -Q/8