Clicker Question

What is the electric force on a 1 C charge when it is very far from other charges?

A). It is not possible to tell

B) It is infinitely large

C) It is zero

D) None of these answers

$$F = \frac{kQ_1Q_2}{r^2} \quad k = 8.99E9 \; N \cdot m^2 \Big/ C^2$$

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Clicker Question

If we increase the distance between two charges by a factor of 2, what happens to the electric force between them?

A). It increases by a factor of 2

B) It increases by a factor of 4

C) It decreases by a factor of 2

D) It decreases by a factor of 4

E) It does not change

$$F = \frac{kQ_1Q_2}{r^2} \quad k = 8.99E9 \; N \cdot m^2 / C^2$$

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Clicker Question

- If I do 10 J of work on a baseball during the process of throwing it, neglecting air resistance, how much does the kinetic energy of the ball increase?

A) 280 J

B) 10 J

C) 0 J

D) 1.172×10^{11} J

Clicker Question

How many Joules of energy are in a 280 Calorie Snickers bar?

DATA: 1 Calorie = 1 kcal = 4184. J

A) 280 J

B) 4184 J = 4.184 kJ

C) 1.172×10^6 J = 1.172 MJ

D) 1.172 J