

Coulomb's Law Sim.

Directions:

- Enter "PhET" into the google browser and navigate to the PhET Simulation Site.
 - Enter "Coulomb's Law" into the finder window at the PhET site.
 - Activate the simulation:
 - Answer the following questions using 2 complete sentences and TAG format.
1. Identify two ways(factors) you can change in order to the charge the objects experience.
 - a. One factor is _____
 - b. A second factor is _____
 2. How could you increase electric force using each factor? _____

 3. How could you decrease electric force using each factor? _____

Complete the table below:

Charge 1 (μC)	Location 1 (cm)	Charge 2 (μC)	Location 2 (cm)	Force (of 1 on 2) (N)	Force (of 2 on 1) (N)
10	3	10	7		
10	1	10	9		
10	1	5	9		
5	1	-5	9		

Summarize:

1. Determine whether each statement is true or false.
 - _____ a. The electric force increases as objects move closer together.
 - _____ b. The electric force increases as an object's charge increases.
 - _____ c. If two objects have different charges, the object with the greater charge, pulls with a greater force.

Apply:

1. The first charged object is exerting a force on the second charged object. Is the second charged object necessarily exerting a force on the first? Explain your reasoning. _____

2. Electric force is a force of attraction or repulsion between objects based on their charges and their distance apart.

A. When is the electric force attractive? _____

B. When is the electric force repulsive? _____
