

Name:

Date:

Class:


Charge Detector Graphing Worksheet

Force vs. Charge

Two charged objects, object #1 and object #2, are held one meter apart. The table at the right indicates the amount of force (in newtons) between the two objects, based on the charge on the objects (in coulombs).

Draw a graph in the space below, using the data in the table. On your graph, place force on the y-axis, and the product of the charges on the objects on the x-axis.

| Charge on #1 (C) | Charge on #2 (C) | Force ($\times 10^9$ N) |
|------------------|------------------|--------------------------|
| 1 | 1 | 9 |
| 1 | 2 | 18 |
| 1 | 3 | 27 |
| 1 | 4 | 36 |
| 2 | 2 | 36 |



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| Distance between #1 and #2 (m) | Force ($\times 10^9$ N) |
|--------------------------------|--------------------------|
| 1 | 9 |
| 2 | 2.25 |
| 3 | 1 |
| 4 | 0.6 |
| 5 | 0.4 |

Force vs. Distance

We have two objects, object #1 and object #2, each with a charge of 1 C. The table indicates the amount of approximate force between the two objects as the distance (in meters) between them is changed.

Make a graph below, using the data in the table. On your graph, place force on the y-axis and the distance between the objects on the x-axis.

