###### Electromagnetism Chapter 16 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Electrostatics**

Electricity is……….









Electric charge is quantized:

-- charge is measured in coulombs (C)

-- charge on one p+ or e– =

A conductor loses –1.05 x 10–18 C of charge. How many e– did it lose?

Electrostatic force can be:

ATTRACTIVE REPULSIVE

+

+

+

–

–

–

Magnitude of elec. force between two charges is found using Coulomb’s law:

kc = 9 x 109 N.m2/C2

q = magnitude of charge (C)

r = separation between charges (m)

A +4.0 x 10–8 C charge and +7.6 x 10–9 C charge are 28 cm apart.

+

+

Find mag. and dir. of force between them.

How far apart must two protons be for them to repel each other with a force of 7.6 x 10–26 N?

+

+

Principle of Superposition

What happens when there are more than two charges present?

Experiments show that