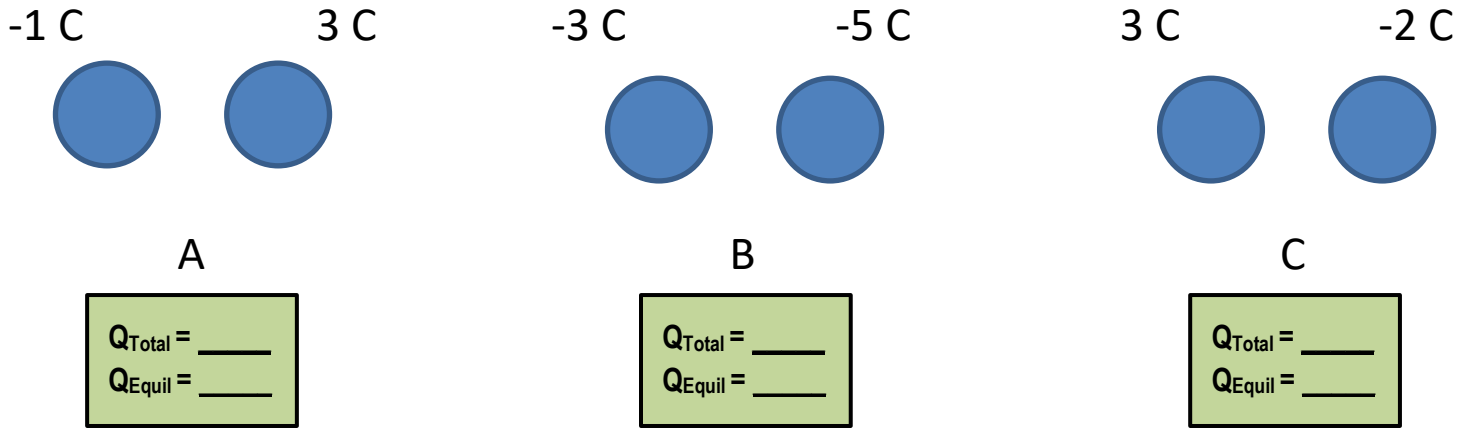
CONCEPT: CONSERVATION OF CHARGE

● Charge **[CAN | CANNOT]** be created or destroyed → Known as "charge _____"

- Charge can only be MOVED from one object to another
- This means if one object gains 1 C, the other object loses 1 C

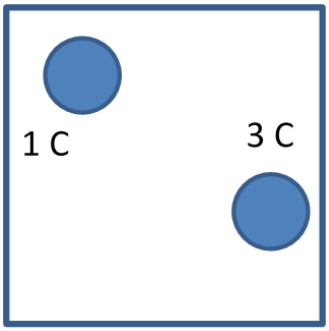
● When conductors are brought together, charges move until they reach _____. → Q_A __ Q_B

EXAMPLE: In the following scenarios, each pair of conducting spheres is brought into contact and allowed to reach equilibrium. What is the amount of charge transferred, and the direction of transfer, in each of the cases?



EXAMPLE: Two charged, metal balls move around an insulated box, colliding and randomly exchanging charge, but not necessarily reaching equilibrium. Initially, one ball has a charge of 1C while the other has a charge of 3C. After some time, you find that one ball has a charge of –2C. What is the charge of the other ball at this time?

BEFORE



AFTER