

Question 1

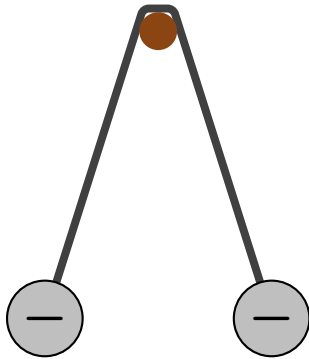
A small metal sphere is initially neutral. It is placed into contact with a small negatively charged metal cube and then released.

Which of the following is true after the two objects have been in contact?

1. They attract each other and stay in contact.
2. They repel each other and move apart.
3. They neither attract nor repel but still stay in contact.

Question 2

Two negatively charged metal balls are connected by a metal wire and suspended over a wooden (insulating) peg as illustrated.



A negatively charged rod is brought near to but not touching the peg.

Which of the following best occurs as the rod approaches the peg?

1. The balls stay in the same place.
2. The balls move closer together.
3. The balls move further apart.

Warm Up Question 1

The water molecule has what is known as a permanent electric dipole (see Fig 20.12) and it can exert electrical forces (see Fig 20.13). Is it possible for one such electric dipole to have a net (total) charge of zero? Explain your answer.

1. Yes. The negative and positive charges can be equal in size but are distributed asymmetrically.
2. No. The sides have different charges.

Warm Up Question 2

Go to the Phys 112 course website (not D2L). Look in the navigation bar on the left or at the top and click "Course Materials". This will open a new page with a day-by-day listing of the course activities. Click on the link for the "Slides 1" on 22 January. You should see the quiz questions that were covered in the class and one more that was not covered in class. Now answer that last question.