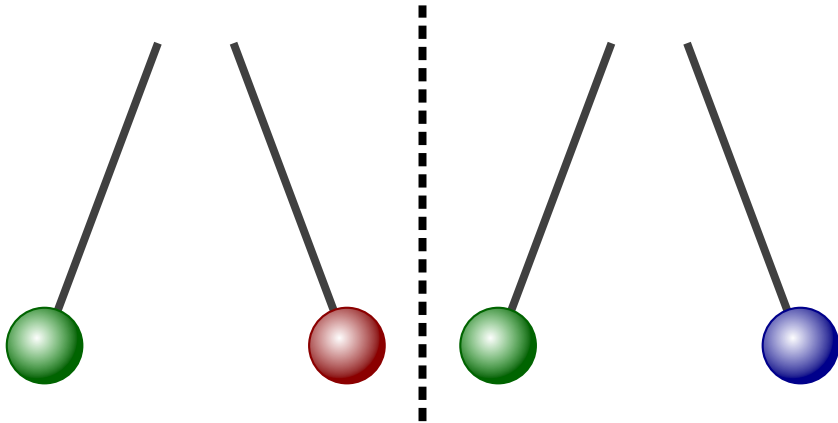


Question 1

Two pairs of balls are suspended next to each other. Each pair is observed to repel and the green ball is the same in both cases.

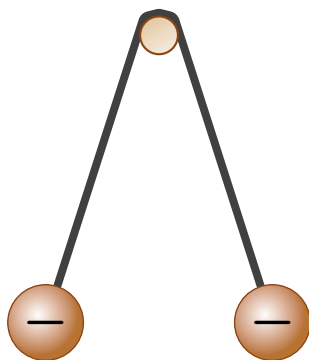


The red and blue balls are placed near to each other. Which of the following is true?

1. Red and blue definitely repel each other.
2. Red and blue definitely attract each other.
3. Red and blue might attract or they might repel.
4. Neither ball exerts a force on the other.

Question 2

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



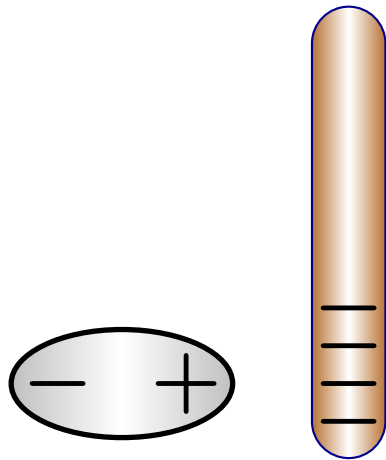
A negatively charged rod is brought near to but not touching the peg.

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.

Question 3

A negatively charged rod is held near to a neutral oval object, which becomes polarized as illustrated.



Which of the following is true about the forces exerted by the rod on the oval object?

1. The force on the right edge (of the oval) is the same as that on the left edge (of the oval) since the charges at the edges are the same.
2. The force on the right edge is larger than as that on the left edge.
3. The force on the right edge is smaller than as that on the left edge.