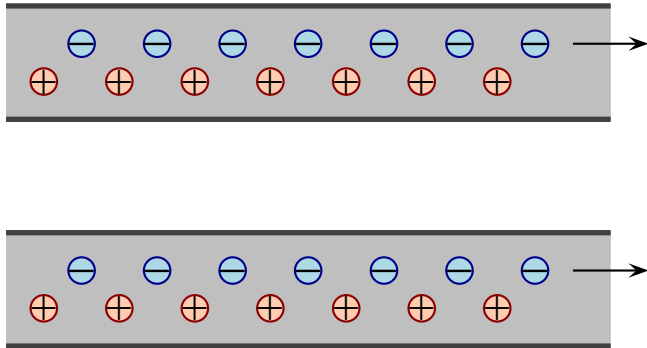


Question 1

Cross sections of two wires are illustrated showing the positive atomic nuclei and negative electrons. The electrons move and the protons are at rest.

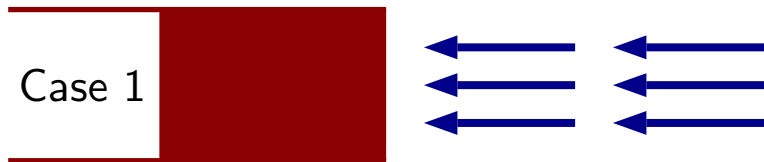


Which of the following is true?

1. The wires attract each other.
2. The wires repel each other.
3. The wires do not exert a force on each other.

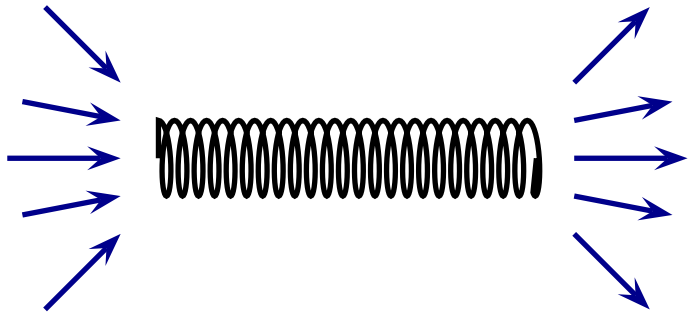
Question 2

Which of the following correctly illustrates the magnetic field in the vicinity of the north pole of a bar magnet?



Question 3

A single solenoid carries a current which produces the illustrated magnetic field.

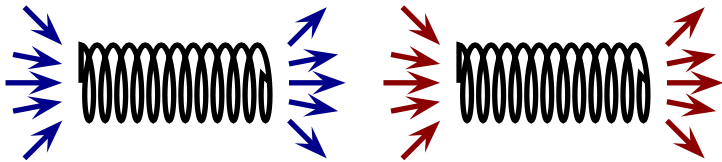


The magnetic field resembles that produced by which one of the following?

1. A bar magnet pointing vertically with N up.
2. A bar magnet pointing vertically with S up.
3. A bar magnet pointing horizontally with N at the right.
4. A bar magnet pointing horizontally with S at the right.

Question 4

Two solenoids carry currents which produce the illustrated magnetic fields.



Which of the following is true regarding the solenoid on the right?

1. Attracted to the left.
2. Repelled to the right.
3. Forced up.
4. Forced down.
5. No force acts on it.