

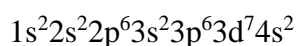
## Answer on Question #60334 - Chemistry - General Chemistry

Question:

1. What is the electron configuration of the element with 27 protons?
2. How many electrons are in the highest energy orbital of the element copper?
3. How many dots should be indicated in the electron dot structure of arsenic?

**Solution:**

1) Number of protons and indicates the number of electrons and the nuclear charge, and the serial number of the item. Therefore, they have 27 protons cobalt atom. Its electronic configuration is as follows:



2) Copper element in Mendeleev's periodic system is in the first group, and the group number is the number of electrons in the outer energy level. Because on the highest energy orbital of the element copper is one electron.

3) Arsenic element is in the fifth group of the periodic system Mendeleev, so the element has 5 electrons in the outer energy level, and thus has 5 dots in their electron dot structure.

**Answer:**

- 1)  $1s^2 2s^2 2p^6 3s^2 3p^6 3d^7 4s^2$ ;
- 2) 1 electron;
- 3) 5 dots.