Name:_____ Class/Period:_____

Assignment: 10-7 and 10-8 Teacher: Thibodeau

1 The atoms in a sample of an element are in excited states. A bright-line spectrum is produced when these atoms

1 absorb energy
2 absorb positrons
3 emit energy
4 emit positrons

2 A specific amount of energy is emitted when excited electrons in an atom in a sample of an element return to the ground state. This emitted energy can be used to determine the

1 mass of the sample
2 volume of the sample
3 identity of the element
4 number of moles of the element

3 During a flame test, a lithium salt produces a characteristic red flame. This red color is produced when electrons in excited lithium atoms

1 are lost by the atoms
2 are gained by the atoms
3 return to lower energy states within the atoms
4 move to higher energy states within the atoms

4 The numbers of protons and neutrons in each of four different atoms are shown in the table below.

Protons and Neutrons in Four Different Atoms

Atom	Number of Protons	Number of Neutrons
A	8	8
D	9	9
E	9	10
G	10	10

Which two atoms represent isotopes of the same element?

1 *A* and *D*
2 *A* and *G*
3 *E* and *D*
4 *E* and *G*

5 What is the number of electrons in an Al^{3+} ion?

1 10
2 13
3 3
4 16