Unit 3 Review

Part 1

**Define the following terms:**

1. Proton
2. Neutron
3. Electron
4. James Chadwick
5. Ernest Rutherford
6. John Dalton
7. Neils Bohr
8. Mass number

**Fill in the blanks in the table:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Element/Ion | Atomic Number | Atomic Mass | Mass Number | Protons | Neutrons | Electrons |
| O2- |  |  |  |  |  |  |
| Mn |  |  |  |  |  |  |
| Hg+ |  |  |  |  |  |  |
| K |  |  |  |  |  |  |
| Ca2+ |  |  |  |  |  |  |

**Calculate the average atomic mass for the following isotopes:**

1. 99.63% 14N, 0.37% 15N
2. Magnesium

|  |  |
| --- | --- |
| mass number |  percent abundance  |
| 24 | 78.99  |
| 25 | 10.00  |
| 26 | 11.01  |

|  |  |
| --- | --- |
| **Isotope** **name** | **Isotope** **abundance** |
| Iron-54 | 5.90% |
| Iron-56 | 91.72% |
| Iron-57 | 2.10% |
| Iron-58 | 0.280% |