Name Period Date

# Atomic Structure – Ch. 3

## Part A – Subatomic Particles

The table below contains information about several elements. In each case, enough information has been provided for you to fill in the blanks. Assume all atoms are neutral.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Isotope****Name**  | **Nuclear Symbol** | **Atomic Number** | **Mass Number** | **# of Protons** | **# of Electrons** | **# of Neutrons** |
| 1. calcium-40
 |  |  |  |  |  |  |
|  |  | 12 | 24 |  |  |  |
|  |  |  |  | 1 |  | 2 |
|  |  |  |  |  |  |  |
|  |  |  |  |  | 26 | 30 |
|  |  |  | 201 | 80 |  |  |
|  |  | 17 |  |  |  | 18 |

**Part B – Average Atomic Mass**

1. Calculate the average atomic mass for neon if its abundance in nature is 90.5% neon-20, 0.3% neon-21, and 9.2% neon-22.
2. Calculate the average atomic mass of silver if 13 out of 25 atoms are silver-107 and 12 out of 25 atoms are silver-109.
3. Distinguish between mass number, and average atomic mass.