

## Atoms and Atomic Numbers

**Name the elements with the following number of protons:**

108 protons \_\_\_\_\_

10 protons \_\_\_\_\_

11 protons \_\_\_\_\_

22 protons \_\_\_\_\_

56 protons \_\_\_\_\_

8 protons \_\_\_\_\_

92 protons \_\_\_\_\_

14 protons \_\_\_\_\_

25 protons \_\_\_\_\_

32 protons \_\_\_\_\_

103 protons \_\_\_\_\_

39 protons \_\_\_\_\_

**For each of the following, identify the element based on the information given.**

1. A certain atom has a nucleus containing five protons and six neutrons and has five electrons orbiting the nucleus.

**This atom is a form of the element** \_\_\_\_\_

2. The ocean contains a variety of minerals and ionic compounds. A scientist isolates a specific ion from a sample of ocean water and determines that it has 12 protons and 12 neutrons with 10 orbiting electrons.

**This ion is a form of the element** \_\_\_\_\_

3. A geologist finds a sample of an unknown element. Upon analysis of the element, she determines that it is composed of 23 protons, 27 or 28 neutrons with 23 orbiting electrons.

**This sample is the element** \_\_\_\_\_

4. A jeweler wants to market a new line of jewelry made from a precious metal with properties similar to platinum. The nucleus of an atom of the element he wants to use is composed of 46 protons and 61 neutrons.

**This metal is a form of the element** \_\_\_\_\_

5. Light bulb filaments are constructed out of a very ductile metal that can be pulled into a thin wire and coiled repeatedly. This element contains atoms with 74 protons and 110 neutrons.

**This metal is a form of the element** \_\_\_\_\_

6. An ion of a certain element has a nucleus containing nine protons and ten neutrons and has ten electrons orbiting the nucleus.

**This ion is a form of the element** \_\_\_\_\_