**Name: Date:**

**Paper Clip Formulas**

Each of the following symbols represents a specific type of paper clip. These paper clips are in separate bags on your table.

|  |  |  |
| --- | --- | --- |
| **Sm= Small** | **R= Regular** | **Jb= Jumbo** |

Using the correct number and type of paper clips, create each substance based on its formula. When you have made all seven substances, have them approved by your teacher.

|  |  |
| --- | --- |
| **Substance** | **Formula** |
| 1 | JbSm2 |
| 2 | Jb2Sm + R2 |
| 3 | 2 Sm + R3 |
| 4 | Sm2 |
| 5 | Jb2R |
| 6 | 4R |
| 7 | 2 Jb(R3Sm)2 |

**Questions:**

1. Which of the substances are elements?
2. Which of the substances are mixtures?
3. Which of the substances are compounds?
4. How many total atoms are in each of the substances above?
5. What is a diatomic element? Which substances above are diatomic? Justify your answer.
6. What is a polyatomic ion? Which substance above contains a polyatomic ion? Justify your answer.
7. If R in #5 has an oxidation number of (-2), what is the oxidation number of Jb?
8. If Jb in #7 has an oxidation number of (+4), what is the oxidation number of R3Sm?
9. If Jb in #1 has an oxidation number of (+2), what is the oxidation number of Sm?
10. What is a binary compound? What ending is used for binary compounds? Which substances above represent binary compounds?