

Interpreting the Periodic Table

Examine the hypothetical periodic table shown below. Use this periodic table to answer the questions that follow.

| | | | | | | | | | | | | |
|---|--|--|---|--|--|---|--|--|--|---|--|--|
| K | | | | | | | | | | | | |
| | | | | | | | | | | J | | |
| F | | | | | | | | | | | | |
| | | | D | | | R | | | | | | |

1. Which pair of elements has the same number of valence electrons?

2. Which pair of elements is in the same period?

3. Which pair of elements is in the same family?

4. Which element has the smallest atomic number?

5. Which elements would be classified as metals?

6. If the atomic number of Element D is 20, then what is the atomic number of element R?

Identifying Substances

Complete the chart by first identifying each of the substances by name. Then describe each substance by placing a check in the appropriate box.

| Substance | Name | Element | Compound | Symbol | Formula | Atom | Molecule |
|------------------|------|---------|----------|--------|---------|------|----------|
| O | | | | | | | |
| O ₂ | | | | | | | |
| H | | | | | | | |
| H ₂ | | | | | | | |
| C | | | | | | | |
| CO | | | | | | | |
| Al | | | | | | | |
| NH ₃ | | | | | | | |
| Cl ₂ | | | | | | | |
| Au | | | | | | | |
| CO ₂ | | | | | | | |
| Ag | | | | | | | |
| Fe | | | | | | | |
| H ₂ O | | | | | | | |
| Hg | | | | | | | |