

Unit 4B Chemical Bonds Practice Problems I Name:

Date:

Unit 4B Chemical Bonds Practice Problems 1

| For each of the | e following statements,  | write "I" for ionic, "C" for cova | lent and "M" for meta | llic.                   |
|-----------------|--|-----------------------------------|-----------------------|-------------------------|
|                 | _ electrons are shared   |                                   |                       |                         |
|                 | <ul> <li>electrons delocalized</li> <li>electrons are transferred</li> <li>crystal lattice</li> <li>luster</li> <li>nonconductors in the solid, molten, and dissolved state</li> <li>malleable and ductile</li> <li>high melting and boiling points</li> <li>volatile liquids and gases</li> <li>weaker forces between atoms</li> <li>hard — difficult to crush</li> </ul> |                                   |                       |                         |
|                 |  |                                   |                       |                         |
|                 |  |                                   |                       |                         |
|                 |  |                                   |                       |                         |
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|                 |  |                                   |                       |                         |
|                 |  |                                   |                       |                         |
|                 |  |                                   |                       |                         |
|                 |  |                                   |                       |                         |
| What is the dif | fference between a catio   | on and an anion?                  |                       |                         |
| cation:         |  |                                   |                       | -                       |
| anion:          |  |                                   |                       |                         |
| -               | alent bond, the electrons<br>  | are shared                        | In a nonpolar coval   | ent bond, the electrons |
| What type of b  | oond will form between t   | he following pairs of atoms?      |                       |                         |
|                 | H and F  | Na and O                          |                       | CI and CI               |
|                 |  |                                   |                       |                         |
| What type of b  | oond will form between t   | he following pairs of atoms?      |                       |                         |
|                 | Fe and S   | Si and O                          |                       | Mg and O                |
|                 |  |                                   | —   —                 |                         |

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