

*What is the strongest intermolecular force present for each of the following molecules?*

- 1) hydrogen ( $\text{H}_2$ ) \_\_\_\_\_
- 2) carbon monoxide ( $\text{CO}$ ) \_\_\_\_\_
- 3) silicon tetrafluoride ( $\text{SiF}_4$ ) \_\_\_\_\_
- 4) nitrogen tribromide ( $\text{NBr}_3$ ) \_\_\_\_\_
- 5) water ( $\text{H}_2\text{O}$ ) \_\_\_\_\_
- 6) acetone ( $\text{CH}_2\text{O}$ ) \_\_\_\_\_
- 7) methane ( $\text{CH}_4$ ) \_\_\_\_\_
- 8) benzene ( $\text{C}_6\text{H}_6$ ) \_\_\_\_\_
- 9) ammonia ( $\text{NH}_3$ ) \_\_\_\_\_
- 10) methanol ( $\text{CH}_3\text{OH}$ ) \_\_\_\_\_

*What is the strongest intermolecular force present for each of the following molecules?*

- |     |  |                                 |
|-----|--|---------------------------------|
| 1)  | hydrogen ( $\text{H}_2$ )                | <b>London dispersion forces</b> |
| 2)  | carbon monoxide ( $\text{CO}$ )          | <b>London dispersion forces</b> |
| 3)  | silicon tetrafluoride ( $\text{SiF}_4$ ) | <b>London dispersion forces</b> |
| 4)  | nitrogen tribromide ( $\text{NBr}_3$ )   | <b>dipole-dipole forces</b>     |
| 5)  | water ( $\text{H}_2\text{O}$ )           | <b>hydrogen bonding</b>         |
| 6)  | acetone ( $\text{CH}_2\text{O}$ )        | <b>dipole-dipole forces</b>     |
| 7)  | methane ( $\text{CH}_4$ )                | <b>London dispersion forces</b> |
| 8)  | benzene ( $\text{C}_6\text{H}_6$ )       | <b>London dispersion forces</b> |
| 9)  | ammonia ( $\text{NH}_3$ )                | <b>hydrogen bonding</b>         |
| 10) | methanol ( $\text{CH}_3\text{OH}$ )      | <b>hydrogen bonding</b>         |