**Intermolecular Forces Worksheet**

1) Using your knowledge of molecular structure, identify the main intermolecular force in the following compounds. You may find it useful to draw Lewis structures to find your answer.

a) PF3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) H2CO \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) HF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) Explain how dipole-dipole forces cause molecules to be attracted to one another.

3) Rank the following compounds from lowest to highest boiling point: calcium carbonate, methane, methanol (CH4O), dimethyl ether (CH3OCH3).

4) Explain why nonpolar molecules usually have much lower surface tension than polar ones.