

## Answers Focus on Graphing page 298.

### *Focus on Graphing*

73. fluorine
74. 20 pm
75. The bond length of a single bond with hydrogen increases as you move down the elements in Group 17.
76. The size of a halogen atom increases as you move down Group 17. So a fluorine atom is the smallest, followed by a chlorine atom, then a bromine atom, then an iodine atom, which is the largest of the four. The same conclusion could be drawn using an atom of an element other than hydrogen as long as an atom of the same element is bonded to an atom of each halogen. In this way, any difference in bond length is a result of the relative sizes of the halogen atoms.