

Name: _____

Instructions: Answer each of the following questions to the best of your ability. Use the proper number of significant figures and units wherever necessary. You will have 10 minutes to complete this quiz.

1. (2 points) Arrange the following atoms in terms of increasing ionization energy (highest on the right, lowest on the left).

Nitrogen

Oxygen

Boron

Beryllium

2. (4 points) Draw two Lewis structures for POCl_3 . Draw one that obeys the octet rule and one that doesn't. Show which is more appropriate, using formal charges.

3. (4 points) Draw Lewis structures and give the molecular geometries for the following molecules.

a. ONF (N is the central atom)

b. PF_5

