

3. (10 pts) The central atom X in a certain molecule has five electron domains, at least one of which is a bond to an outer atom Z. Using the information, draw as many different molecular geometries as are possible for this molecule. Non-bonded pairs need only be drawn on the central atom.

Then, for each of the geometries you have drawn, record the VSEPR molecular geometry, bond angle(s) as appropriate (note the effects of lone pairs!) and hybridization of the central atom. Lastly, state whether the molecule is polar or nonpolar.

<u>Drawing</u>	<u>Molecular Geometry</u>	<u>Bond Angle(s)</u>	<u>Hybridization</u>	<u>P/NP</u>
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