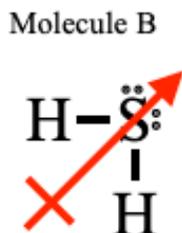
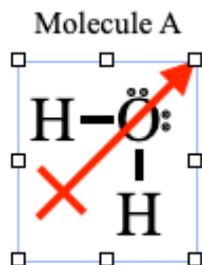


For the following LDMS, draw in the arrow representing the polarity of the molecules. If the molecule is not polar, draw no arrow. Then, answer the questions that follow using A and B to reference the molecules.



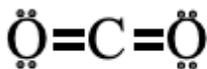
65. Which direction does the polarity arrow point in molecule A?
- a. lower left to upper right
  - b. lower right to upper left
  - c. upper right to lower left
  - d. upper left to lower right
  - e. the molecule is non-polar, so there is no polarity arrow
66. Which direction does the polarity arrow point in molecule B?
- a. lower left to upper right
  - b. lower right to upper left
  - c. upper right to lower left
  - d. upper left to lower right
  - e. the molecule is non-polar, so there is no polarity arrow

To answer 67 to 71, you need to determine which molecule is more polar. Do do so, look up their electronegative and subtract. Hydrogen has an e-neg of 2.2, oxygen is 3.44 and sulfur is 2.58. As a result, molecule A has bond polarities of 1.24 and molecule B has bond polarities of 0.38. This means that molecule A is more polar.

67. Which molecule will have the higher boiling point? **A**
68. Which molecule will have the stronger intermolecular forces? **A**
69. Which molecule will have the high volatility? **B**
70. Which molecule will more likely be a gas at room temperature? **B**
71. Which one will be a better solvent for polar molecules? **A**

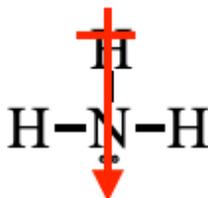
For the following LDMS, draw in the arrow representing the polarity of the molecules. If the molecule is not polar, draw no arrow. Then, answer the questions that follow using A and B to reference the molecules.

Molecule A



Non-Polar

Molecule B



72. Which direction does the polarity arrow point in molecule A?

- a. up
- b. down
- c. left
- d. right
- e. the molecule is non-polar, so there is no polarity arrow

73. Which direction does the polarity arrow point in molecule B?

- a. up
- b. down
- c. left
- d. right
- e. the molecule is non-polar, so there is no polarity arrow

74. Which molecule will have the lower volatility? **B**

75. Which molecule will have weaker cohesive forces? **A**

76. Which molecule will have the lower boiling point? **A**

77. Which molecule will more likely be a gas at room temperature? **A**

78. Which one will have weaker intermolecular forces? **A**

79. Which molecule will more likely dissolve in water? **B**