

Name: _____

Date: _____

Unit 3.6

Deviation from Ideal Gas Law

1. Lowering the temperature of a system causes deviations from the ideal gas law. Explain.
2. A real gas will behave more like an ideal gas when the pressure of a system decreases and the temperature remains the same. Explain.
3. The following questions pertain to a system containing 122 g CO(g) in a 0.400 L container at -71.2°C .
 - (a) Calculate the pressure exerted by the CO(g) in this system using the ideal gas equation.
 - (b) The actual pressure exerted by the carbon monoxide gas in this system was found to be 145 atm. Explain why the actual pressure is less than what would be expected.
4. Why do forces of attraction between gas particles increase when they are closer together?
5. Is the actual volume of a gaseous system less than, equal to, or greater than the volume that would be predicted using the ideal gas law equation? Explain.