WKS – Honors
Real Gases

NAME _____
Period _____ **Date** _____

Re-read pp. 303-306 in the text and answer the following questions.

1. Gases deviate from ideal behavior when the pressure is **(very low, very high)**. What TWO assumptions of KMT are no longer valid under your selected condition of pressure?

2. Gases deviate from ideal behavior when the temperature is **(very low, very high)**. What happens to the particles under your selected condition?

3. Which of the following gases would you expect to deviate most from ideal behavior: He, O_2, H_2, H_2O, N_2, HCl, NH_3? Explain.

For each statement below, write *true* or *false*. If it is false, change the statement to make it true.

_____ 4. An ideal gas is one whose particles take up space.

_____ 5. At low temperatures, ideal gases liquefy.

_____ 6. In the real world, gases consisting of small molecules are the only gases that are truly ideal.

_____ 7. Most gases behave like ideal gases at many temperatures and pressures.

_____ 8. No intermolecular attractive forces exist in a real gas.

_____ 9. Nonpolar gas molecules behave more like ideal gases than do gas molecules that are polar.

_____ 10. Real gases deviate most from ideal gas behavior at high pressures and low temperatures.

_____ 11. The smaller the gas molecule, the more the gas behaves like an ideal gas.