

# SOB, Units 19, Form S

Name \_\_\_\_\_ Period \_\_\_\_\_

*This is a Take Home Exam. You may use your Notes, PowerPoint, or Text on this exam but NO help from human beings!*

**You MUST HAND WRITE THIS EXAM!! NO TYPED PAPERS WILL BE ACCEPTED!**

**SHOW YOUR METHOD OF SOLUTION, THE Hup, Two, Three, Four.**

**Be sure that your answers look reasonable!**

$$PV = nRT$$

Where

**P is the pressure in kPa**

**V is the Volume in L**

**n is the number of moles**

**T is the temperature in K (C + 273°)**

**R is the gas constant: 8.31 L•kPa/mol•K**

**1. Find the volume when 10.00 mols of F<sub>2</sub> at 82.0 kPa are at 35.0°C.**

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**2. At STP, 50.0 g of N<sub>2</sub> react to form NH<sub>3</sub>, find how many liters of NH<sub>3</sub> are formed.**

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**When finished, please STAPLE this exam onto your papers and turn in on due date.**