

# SOB, Units 19, Form I-L

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<sup>o</sup>)**

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

1. Find the number of moles when 5.00 L of O<sub>2</sub> at 50.0 kPa are at 35.0°C.

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2. At STP, 150.0 g of H<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.**