

# SOB, Units 19, Form A-C

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 ( $C + 273^{\circ}$ )**

**R is the gas constant:  $8.31 \text{ L}\cdot\text{kPa}/\text{mol}\cdot\text{K}$**

**1. Find the pressure when 2.00 mol of  $\text{H}_2$  are in a 10.0 L flask at  $16.0^{\circ}\text{C}$ .**

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**2. When 15.0 g of  $\text{N}_2$  react to form  $\text{NH}_3$ , find how many liters of  $\text{NH}_3$  are formed at STP.**

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