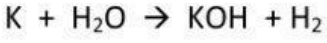
NAME: _____

STOICHIOMETRY: VOLUME EXERCISES WORKSHEET

Solve the following stoichiometry problems and write the correct answer with units (For example: mol, g or L) Round up to 2 decimals.

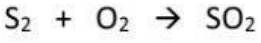
1. How many liters of H_2 are created from the reaction of 20.0g K?



$$K + H_2O \rightarrow KOH + H_2$$

Answer:_____

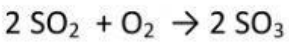
2. How many liters of SO_2 will be produced from 26.9L O_2?



$$S_2 + O_2 \rightarrow SO_2$$

Answer:_____

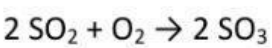
3. How many liters of oxygen gas are needed to react with 0.234 grams of SO_2 gas at STP?



$$2\ SO_2 + O_2 \rightarrow 2\ SO_3$$

Answer:_____

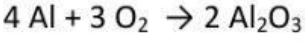
4. How many liters of oxygen gas are needed to produce 36.5 liters of SO_3 gas at STP?



$$2\ SO_2 + O_2 \rightarrow 2\ SO_3$$

Answer:_____

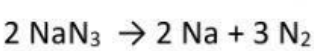
5. Calculate the volume (in liters) of oxygen gas required to react with 50.0 g of aluminum at STP.



$$4\ Al + 3\ O_2 \rightarrow 2\ Al_2O_3$$

Answer:_____

6. An automobile airbag inflates when N_2 gas results from the explosive decomposition of sodium azide (NaN_3). Calculate the mass of NaN_3 required to produce 50.0 L of N_2 gas at STP



$$2\ NaN_3 \rightarrow 2\ Na + 3\ N_2$$

Answer:_____