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 Ha	are created	from the	reaction of	of 20 0g K?
	TIOW III GITY	11112	are created	II OIII CIIC	I Caction (JI 20.05 K.

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

Answer:

2. How many liters of SO₂ will be produced from 26.9L O₂?

$$S_2 + O_2 \rightarrow SO_2$$

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 SO₃ 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.

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

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

$$2 \text{ NaN}_3 \rightarrow 2 \text{ Na} + 3 \text{ N}_2$$

Answer:_____