

$$5 \text{ mol H}_2\text{SO}_4 \times \frac{98 \text{ g H}_2\text{SO}_4}{1 \text{ mol H}_2\text{SO}_4} = 490 \text{ g H}_2\text{SO}_4$$

What if I had 5g of SO₂

4g of O₂

10g of H₂O

2 mol
= 64g/mol

$$5 \text{ g SO}_2 \times \frac{\text{mol SO}_2}{64 \text{ g SO}_2} = \underline{0.039 \text{ mol SO}_2}$$

$$0.039 \text{ mol SO}_2 \times \frac{2 \text{ mol H}_2\text{SO}_4}{2 \text{ mol SO}_2} = 0.039 \text{ mol H}_2\text{SO}_4$$

Theoretical yields
from ~~4g~~ and 10g H₂O

4g O₂

0.125 mol
PRODUCT

0.56 mol

PRODUCT