

Name \_\_\_\_\_ Per. \_\_\_\_\_

## Do Now

The equation for the synthesis of Calcium Nitride is:



- How many mols of  $\text{Ca}_3\text{N}_2$  are formed from 6 mols of Ca? \_\_\_\_\_
  - How many mols of  $\text{Ca}_3\text{N}_2$  are formed from 3 mols of Ca? \_\_\_\_\_
  - How many mols of Ca will form 4 mols of  $\text{Ca}_3\text{N}_2$ ? \_\_\_\_\_
  - How many mols of  $\text{Ca}_3\text{N}_2$  are formed from 3 mols of  $\text{N}_2$ ? \_\_\_\_\_
  - How many mols of  $\text{N}_2$  are needed to react 6 mols of Ca? \_\_\_\_\_
  - How many mols of  $\text{N}_2$  are needed to react 12 mols of Ca? \_\_\_\_\_
7. How many mols is 100,000 ozone,  $\text{O}_3$ , molecules? Show conversion:

8. It only takes 1 CFC (chlorofluorocarbon) molecule to destroy 100,000 ozone molecules in this reaction:



- If 5.0 g  $\text{O}_3$  are destroyed, how many g of  $\text{O}_2$  are formed? Show conversion:

9. If 25 g of CFC's is released from a broken refrigerator, how many molecules is this?

10. If  $1.2 \times 10^{24}$  ozone molecules are destroyed, how many mols is this?

11. In the reaction  $2 \text{C}_2\text{H}_5\text{OH} + \text{O}_2 \rightarrow 4 \text{CO}_2 + 4 \text{H}_2\text{O}$

how many **mols** of greenhouse gas,  $\text{CO}_2$ , are formed when 565 g  $\text{C}_2\text{H}_5\text{OH}$  (ethanol) is burned in a car motor?

Show conversion:

12. How many molecules is 565 g of  $\text{C}_2\text{H}_5\text{OH}$  ?