MOLE TO MOLE CONVERSION

In the first set of boxes, indicate what color will represent each element. Balance each equation and tally each element in the boxes below the equation. Finally, convert the moles in the problem that follows (show your work).

N ☐   H ☐   O ☐

1. __NH_3 + __O_2 → __NO + __H_2O

☐ ☐ ☐ ☐

a. How many moles of O_2 do you need to make 14 moles of NO? _____

In the first set of boxes, indicate what color will represent each element. Balance each equation and tally each element in the boxes below the equation. Finally, convert the moles in the problem that follows (show your work).
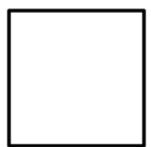
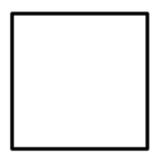Fe ☐   O ☐

2. __Fe + __O_2 → __Fe_2O_3

☐   ☐   ☐

b. How many moles of Fe do you need to make 28 moles of Fe_2O_3? _____

In the first set of boxes, indicate what color will represent each element. Balance each equation and tally each element in the boxes below the equation. Finally, convert the moles in the problem that follows (show your work).

Ca ☐   O ☐   H ☐   P ☐

3.   __Ca(OH)$_2$ + __H$_3$PO$_4$ →__Ca$_3$(PO$_4$)$_2$ + __H$_2$O

☐   ☐   ☐   ☐

c. How many moles of H$_3$PO$_4$ do you need to make 4 moles of H$_2$O? _____

In the first set of boxes, indicate what color will represent each element. Balance each equation and tally each element in the boxes below the equation. Finally, convert the moles in the problem that follows (show your work).

Al ☐   H ☐   Cl ☐

4. __Al + __HCl →__AlCl₃ + __H₂

☐ ☐ ☐ ☐

d. How many moles of Al do you need to make 132 moles of $AlCl_3$?m _____

In the first set of boxes, indicate what color will represent each element. Balance each equation and tally each element in the boxes below the equation. Finally, convert the moles in the problem that follows (show your work).

N ☐   H ☐   O ☐

5. __NH$_3$ + __O$_2$ →__NO + __H$_2$O

☐ ☐ ☐ ☐

e. If you had 55 moles of O$_2$ how many moles of NO did you produce? _____

In the first set of boxes, indicate what color will represent each element. Balance each equation and tally each element in the boxes below the equation. Finally, convert the moles in the problem that follows (show your work).

C ☐   H ☐   O ☐

6. __C_2H_4 + __O_2 → __CO_2 + __H_2O

☐ ☐ ☐ ☐

f. How many moles of O_2 do you need to make 77 moles of CO_2? _____