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).

A green line on a black background

Description automatically generatedA purple line on a black background

Description automatically generatedA red line on a black background

Description automatically generated

N H O

1. A number with red and purple lines

   Description automatically generated**A number of purple and green lines

   Description automatically generatedA number on a black background

   Description automatically generatedA red and green lines on a black background

   Description automatically generated4NH₃ + 5O₂ →4NO + 6H₂O**
2. How many moles of O2 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).

A red line on a black background

Description automatically generatedA yellow line on a black background

Description automatically generated

Fe O

1. **4Fe + 3O₂ → 2Fe2O3**

A number on a black background

Description automatically generatedA number with red lines on a black background

Description automatically generatedA black background with yellow lines

Description automatically generated

b. How many moles of Fe do you need to make 28 moles of Fe2O3? \_\_\_\_\_\_\_

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).

A green line on a black background

Description automatically generatedA red line on a black background

Description automatically generatedA grey line on a black background

Description automatically generatedA blue line on a black background

Description automatically generated

Ca O H P

1. A number of orange and grey lines

   Description automatically generatedA number with blue green and white lines

   Description automatically generated with medium confidenceA number of numbers with orange green and white lines

   Description automatically generated with medium confidence**3Ca(OH)2 + 2H3PO4 →1Ca3(PO4)2 + 6H₂O**

A number with different colored lines

Description automatically generated with medium confidence

c. How many moles of H3PO4 do you need to make 4 moles of H2O? \_\_\_\_\_\_\_

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).

A yellow line on a black background

Description automatically generatedA blue line on a black background

Description automatically generatedA purple line on a black background

Description automatically generated

Al H Cl

1. **A number with blue lines on a black background

   Description automatically generatedA number with orange and purple lines

   Description automatically generatedA number with blue and orange lines

   Description automatically generated2Al + 6HCl →2AlCl3 + 3H₂**

**A black background with pink lines

Description automatically generated**

d. How many moles of Al do you need to make 132 moles of AlCl3?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).

A grey line on a black background

Description automatically generatedA green line on a black background

Description automatically generatedA red line on a black background

Description automatically generated

N H O

1. A number with lines on it

   Description automatically generated with medium confidenceA number of numbers on a black background

   Description automatically generatedA black background with red and grey lines

   Description automatically generatedA number of lines with red and green stripes

   Description automatically generated**4NH3 + 5O2 →4NO + 6H₂O**

e. If you had 55 moles of O2 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).

A green line on a black background

Description automatically generatedA purple line on a black background

Description automatically generatedA red line on a black background

Description automatically generated

C H O

1. **1C2H4 + 3O2 → 2CO2 + 2H₂O**

A red and purple lines on a black background

Description automatically generatedA purple and green lines on a black background

Description automatically generatedA number with purple lines on a black background

Description automatically generatedA red and green lines on a black background

Description automatically generated

f. How many moles of O2 do you need to make 77 moles of CO2? \_\_\_\_\_\_\_