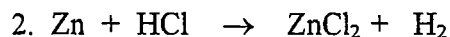
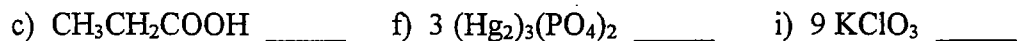
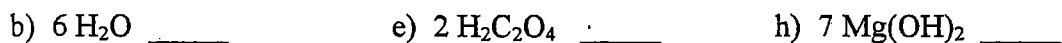


BALANCING CHEMICAL EQUATIONS

1. How many oxygen atoms are there in each of the following?



What are the products of this reaction? _____

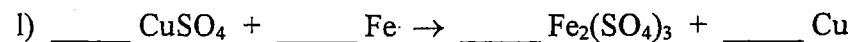
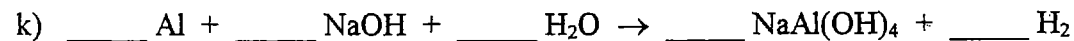
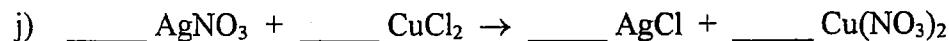
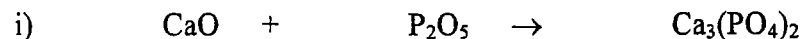
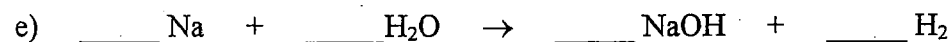
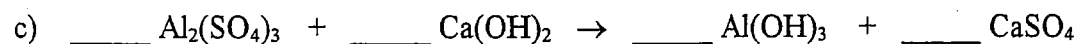
What are the reactants? _____

Is the equation balanced? _____

How many chlorine atoms actually take part in the reaction? _____

3. Can you change the subscripts (small, lower numbers) in the formulas when balancing a chemical equation? _____

4. Balance these expressions to make true chemical equations.



BALANCE THE FOLLOWING EQUATIONS

1. $\underline{\quad}$ NaCl + $\underline{\quad}$ O₂ → $\underline{\quad}$ NaClO₃
2. $\underline{\quad}$ CrS + $\underline{\quad}$ O₂ → $\underline{\quad}$ Cr₂O₃ + $\underline{\quad}$ SO₂
3. $\underline{\quad}$ K + $\underline{\quad}$ H₂O → $\underline{\quad}$ KOH + $\underline{\quad}$ H₂
4. $\underline{\quad}$ Al + $\underline{\quad}$ NiO → $\underline{\quad}$ Al₂O₃ + $\underline{\quad}$ Ni
5. $\underline{\quad}$ Co₂(SO₄)₃ + $\underline{\quad}$ Ca(OH)₂ → $\underline{\quad}$ Co(OH)₃ + $\underline{\quad}$ CaSO₄
6. $\underline{\quad}$ Na + $\underline{\quad}$ S₈ → $\underline{\quad}$ Na₂S
7. $\underline{\quad}$ C₆H₁₂O₆ + $\underline{\quad}$ O₂ → $\underline{\quad}$ CO₂ + $\underline{\quad}$ H₂O
8. $\underline{\quad}$ Na₂CO₃ + $\underline{\quad}$ H₃PO₄ → $\underline{\quad}$ Na₃PO₄ + $\underline{\quad}$ H₂O + $\underline{\quad}$ CO₂
9. $\underline{\quad}$ Al₂O₃ + $\underline{\quad}$ CO → $\underline{\quad}$ Al + $\underline{\quad}$ CO₂
10. $\underline{\quad}$ P + $\underline{\quad}$ O₂ → $\underline{\quad}$ P₂O₅

WRITE OUT BALANCED EQUATIONS FOR THE FOLLOWING

1. potassium chlorate yields potassium chloride plus oxygen
 $\underline{\quad}$ → $\underline{\quad}$ + $\underline{\quad}$
2. methane plus oxygen yields carbon dioxide plus water
 $\underline{\quad}$ + $\underline{\quad}$ → $\underline{\quad}$ + $\underline{\quad}$
3. cobalt (II) sulphide plus oxygen yields cobalt (III) oxide plus sulphur dioxide
 $\underline{\quad}$ + $\underline{\quad}$ → $\underline{\quad}$ + $\underline{\quad}$
4. hydrogen plus nitrogen yields ammonia
 $\underline{\quad}$ + $\underline{\quad}$ → $\underline{\quad}$
5. silver sulphate plus copper yields copper (II) sulphate plus silver
 $\underline{\quad}$ + $\underline{\quad}$ → $\underline{\quad}$ + $\underline{\quad}$