

NAME: _____

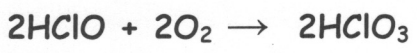
PER: _____

BALANCING CHEMICAL EQUATIONS

In each formula below, calculate the total number of atoms OF EACH ELEMENT on the left side of the formula. (to the left of the arrow.) Repeat for the right side of the formula, then indicate with a "YES" or "NO" whether or not the formula balanced (# of atoms of each element on left = # of atoms of each element on right)

+++++

EXAMPLE:



left side:

right side:

2 molecules X 1 H = 2 H atoms
2 molecules X 1 Cl = 2 Cl atoms
2 molecules X 1 O = 2 O atoms

2 molecules X 1 H = 2 H atoms
2 molecules X 1 Cl = 2 Cl atoms

+

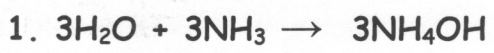
2 molecules X 2 O = 4 atoms
= 6 total O atoms

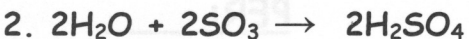
2 molecules X 3 O = 6 O atoms

totals for atoms per each element on each side match, so formula is balanced. (answer is "YES")

+++++

EXERCISES - USE EXAMPLE AS A GUIDE AND SHOW ALL WORK!





NAME: _____

BALANCING CHEMICAL EQUATIONS

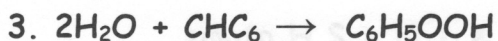
In each formula below, calculate the total number of atoms OF EACH ELEMENT on the left side of the formula (to the left of the arrow). Repeat for the right side of the formula, then indicate with a "YES" or "NO" whether or not the formula balanced (% of atoms of each element on left = % of atoms of each element on right)

EXAMPLE:



left side:

right side:



2 molecules \times 2 H atoms = 4 H atoms
 2 molecules \times 1 C atom = 2 C atoms
 2 molecules \times 1 O atom = 2 O atoms

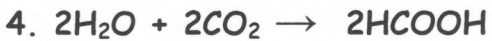
1 molecule \times 2 H atoms = 2 H atoms
 1 molecule \times 1 C atom = 1 C atom
 2 molecules \times 1 O atom = 2 O atoms

2 molecules \times 2 H atoms = 4 H atoms
 2 molecules \times 1 C atom = 2 C atoms
 2 molecules \times 1 O atom = 2 O atoms

1 molecule \times 2 H atoms = 2 H atoms
 1 molecule \times 1 C atom = 1 C atom
 2 molecules \times 1 O atom = 2 O atoms

totals for atoms per each element on each side match, so formula is balanced. (answer is "YES")

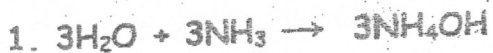
EXERCISES - USE EXAMPLE AS A GUIDE AND SHOW ALL WORK!



NAME: KEY

PER: _____

BALANCING CHEMICAL EQUATIONS



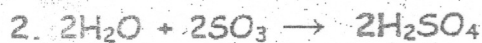
15 H → ~~15 H~~
3 "O" → 3 "O"
3 N → 3 N

YES



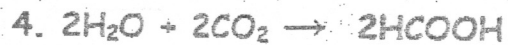
5 H → 6 H
2 "O" → 2 "O"
7 C → 6 C

NO



4 H → 4 H
8 "O" → 8 "O"
2 S → 2 S

YES



4 H → 4 H
6 "O" → 4 "O"
2 C → 2 C

NO