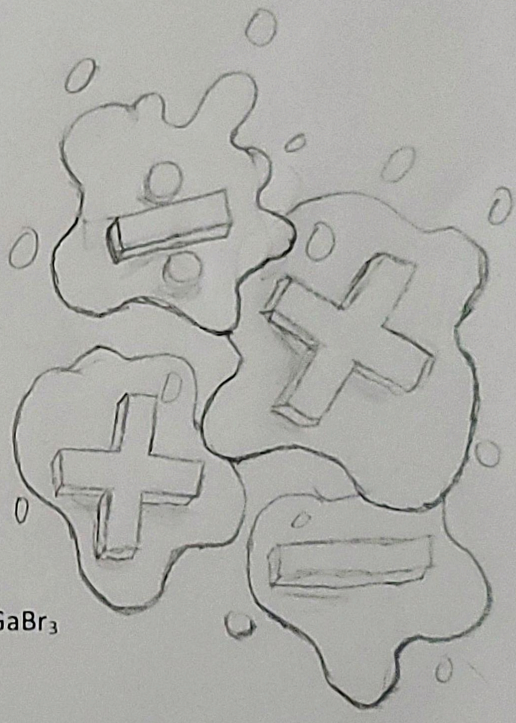
Kate White

Balancing Chemical Equations Worksheet

1. 2 H_2 + ___ O_2 → 2 H_2O
2. 2 Mg + ___ O_2 → 2 MgO
3. 2 Li + ___ F_2 → 2 LiF
4. 4 K + ___ O_2 → 2 K_2O
5. 2 H_2O_2 → 2 H_2O + ___ O_2
6. 2 Al + 3 Cl_2 → 2 $AlCl_3$
7. 2 Ag_2O → 4 Ag + ___ O_2
8. 3 H_2 + ___ N_2 → 2 NH_3
9. ___ Ca + 2 H_2O → ___ $Ca(OH)_2$ + ___ H_2
10. ___ $SeCl_6$ + ___ O_2 → ___ SeO_2 + 3 Cl_2
11. ___ CH_4 + ___ O_2 → ___ CO_2 + 2 H_2O
12. 2 $KClO_3$ → 2 KCl + 3 O_2
13. ___ S_8 + 8 O_2 → 8 SO_2
14. ___ P_4 + 5 O_2 → 2 P_2O_5
15. 2 Na + 2 H_2O → 2 NaOH + ___ H_2
16. 2 NO + ___ O_2 → 2 NO_2
17. 2 $FeCl_2$ + ___ Cl_2 → 2 $FeCl_3$
18. 4 CrO_3 → 2 Cr_2O_3 + 3 O_2
19. 3 AgBr + ___ $GaPO_4$ → ___ Ag_3PO_4 + ___ $GaBr_3$
20. 2 Al + ___ Fe_2O_3 → 2 Fe + ___ Al_2O_3
21. 2 KNO_3 + ___ H_2CO_3 → ___ K_2CO_3 + 2 HNO_3
22. ___ $SiCl_4$ + 2 H_2O → ___ SiO_2 + 4 HCl
23. ___ H_3PO_4 + 5 HCl → ___ PCl_5 + 4 H_2O
24. ___ $Pb(NO_3)_2$ + 2 NaI → ___ PbI_2 + 2 $NaNO_3$
25. 2 Al + 3 H_2SO_4 → ___ $Al_2(SO_4)_3$ + 3 H_2



OYO M.13

13.1 23

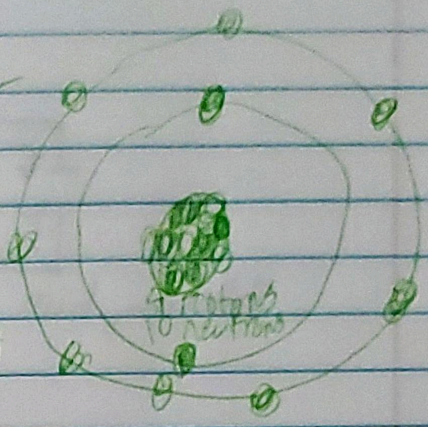
13.2 6

13.3 ~~Nitrogen~~ Carbon a and c

13.4

13.5 4 55 electrons

13.6 it would be weaker than a pion



13.7 it breaks down to 89

13.8 240

13.9 Isotope

13.10 a and 5 grams

M.13 SG.

1 a a representation in a physical
b the center of an atom
c the number of protons in an atom
d an atoms neutrons + protons
e atoms with same number of protons but different neutron
f Atoms with the same nucleus
g an atom with an unstable nucleus
h the time of half of a sample to decay

2 electron - Proton - Neutron

3 the strong force

4 Lithium

5 Shape

6 34 Se

7 a Protons ~~26~~ 10 neutrons ~~30~~ 10 electrons ~~26~~ 10
b Protons 26 neutrons 30 electrons 26
c protons 57 neutrons 82 electrons 57
d Protons 12 neutrons 12 electrons 12

8 24

9 Xe Ar

10

11

12 238.0

13 atoms are small

14 $^{14}_{6}C$ $^{124}_{53}I$

15 $^{210}_{83}Bi$ $^{224}_{88}Ra$

16 beta

17 2.5 grams

18 0.063

19 is decay rate

20 alpha, daughter product, alpha decay

M.1.3 Notes

Balancing chemicals is easy

N	1
O	2
H	1
Li	1

N	1
O	1
H	2
Li	2

$\_NO_2 + \_HLi \rightarrow \_N + \_O(HLi)_2$

Whatever is on this side goes here

the other side goes on the other side. By multiplying stuff you can figure how much of each compound to add to get an even math.

Radiation is bad because it kills both your body then has to make up for those cells and makes less get used for other stuff.

the second letter of ~~the~~ ~~each~~ atoms symbol is ~~always~~ ALWAYS lowercase and the first is always capital. This helps distinguish between elements in compounds

A Bohr model