Julee Ann Cabuang
Tuesday
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SCT 406

Balancing Equations Practice #2

1. $2H_2 + O_2 \rightarrow 2H_2O$
2. $2Na + Cl_2 \rightarrow 2NaCl$
3. $2KClO_3 \rightarrow 3O_2 + 2KCl$
4. $Cu + 2AgNO_3 \rightarrow 2Ag + Cu(NO_3)_2$
5. $3Hf + 2N_2 \rightarrow Hf_3N_4$
6. $5HNO_3 + P \rightarrow H_3PO_4 + 5NO_2 + H_2O$
7. $P_4O_{10} + 6H_2O \rightarrow 4H_3PO_4$
8. $C_2H_5OH + 3O_2 \rightarrow 2CO_2 + 3H_2O$
9. $2N_2 + 5O_2 \rightarrow 2N_2O_5$
10. $C_2H_2 + 2H_2 \rightarrow C_2H_6$
11. $C_3H_8 + 5O_2 \rightarrow 3CO_2 + 4H_2O$
12. $6O_2 + C_4H_9OH \rightarrow 4CO_2 + 5H_2O$
13. $6Sr + 2N_2 \rightarrow 2Sr_3N_2$
14. $2Cu_2S + 2O_3 \rightarrow 2Cu_2O + 2SO_2$
15. $Mg_3N_2 + 3H_2O \rightarrow 3MgO + 2NH_3$
16. $Cr(OH)_3 + NaOH \rightarrow NaCrO_2 + 2H_2O$
17. $3FeCl_2 + 2Na_3PO_4 \rightarrow Fe_3(PO_4)_2 + 6NaCl$
18. $6HCl + 2Al \rightarrow 2AlCl_3 + 3H_2$
19. $2H_2SO_4 + C \rightarrow CO_2 + 2H_2O + 2SO_2$
20. $CaCO_3 + 2HCl \rightarrow CaCl_2 + CO_2 + H_2O$
21. $2NaI + Pb(NO_3)_2 \rightarrow PbI_2 + 2NaNO_3$

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22. $4\,NH_3 + 5\,O_2 \rightarrow 6\,H_2O + 4\,NO$

23. $C_2H_5OH + 3\,O_2 \rightarrow 2\,CO_2 + 3\,H_2O$

24. $2\,H_2O_2 \rightarrow 2\,H_2O + O_2$

25. $3\,CuO + 2\,NH_3 \rightarrow N_2 + 3\,H_2O + 3\,Cu$

26. $2\,ZnS + 3\,O_2 \rightarrow 2\,ZnO + 2\,SO_2$

27. $Ca(OH)_2 + 2\,HCl \rightarrow CaCl_2 + 2\,H_2O$

28. $2\,BiCl_3 + 3\,H_2S \rightarrow 6\,HCl + Bi_2S_3$

29. Choose the balanced equation

a) S = 1, K = 2, O = 6, H = 4 | O = 5, H = 3

A) $2\,KOH + H_2SO_4 \rightarrow H_3O + K_2SO_4$ ×
B) $KOH + H_2SO_4 \rightarrow H_2O + K_2SO_4$ ×
C) $KOH + H_2SO_4 \rightarrow OHSO_5 + KH_2$ ×
D) $2\,KOH + H_2SO_4 \rightarrow 2\,H_2O + K_2SO_4$

d) K = 2, O = 6, H = 4, S = 1 | K = 2, O = 6, H = 4, S = 1

30. Choose the balanced equation

A) $2\,HCl + NaOH \rightarrow NaCl + H_2O$ ×
B) $HCl + NaOH \rightarrow NaCl + 2\,H_2O$ ×
C) $HCl + NaOH \rightarrow NaCl + H_2O$ ✓
D) $HCl + 2\,NaOH \rightarrow 2\,NaCl + 2\,H_2O$ ×

31. Which equation **is not** balanced?

A) $2\,NO + O_2 \rightarrow 2\,NO_2$
B) $2\,Na + 2\,H_2O \rightarrow 2\,NaOH + H_2$
C) $H_3PO_4 + 3\,KOH \rightarrow K_3PO_4 + 3\,H_2O$
D) $3\,HBr + Fe(OH)_3 \rightarrow FeBr_3 + 6\,H_2O$

32. Which **equations** are balanced?

A) $CH_4 + 3\,O_2 \rightarrow CO_2 + 2\,H_2O$ ×
B) $4\,C_2H_5 + 13\,O_2 \rightarrow 8\,CO_2 + 10\,H_2O$ ✓
C) $C_3H_8 + 2\,O_2 \rightarrow 3\,CO_2 + 4\,H_2O$ ×
D) $C_4H_8 + 6\,O_2 \rightarrow 4\,CO_2 + 4\,H_2O$ ✓

33. The complete reaction of 8 g of methane (CH_4) with 71 g of chlorine gas ($C1_2$) produces 73 g ofhydrochloric acid (HCl) and a certain amount of carbon (C).
The balanced equation for this reaction is as follows:
$CH_4 + 2\,C1_2 \rightarrow C + 4\,HCl$