

Name

key

Period

A11

Quiz 11 – Balancing Polyatomic Ion Chemical Reactions

20 Points

Complete the following chart based on the two reactions listed above.

⑥ ③

$$\underline{3} \text{ Mn} + \underline{2} \text{ Cu}(\text{BrO}_3)_3 \rightarrow \underline{2} \text{ Cu} + \underline{3} \text{ Mn}(\text{BrO}_3)_2$$

Reactants		Products	
Mn	1 3	Mn	1 3
Cu	1 2	Cu	1 2
BrO ₃	3 6	BrO ₃	2 6

③ ⑥

$$\underline{3} \text{ MgCO}_3 + \underline{2} \text{ K}_3\text{PO}_4 \rightarrow \underline{\hspace{1cm}} \text{ Mg}_3(\text{PO}_4)_2 + \underline{3} \text{ K}_2\text{CO}_3$$

Reactants		Products	
Mg	1 3	Mg	3
CO ₃	1 3	CO ₃	1 3
K	3 6	K	2 6
PO ₄	1 2	PO ₄	2

③ ⑥
⑧ ④

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20 Points

Complete the following chart based on the two reactions listed above.

⑥ ③

$$\underline{2} \text{ Al} + \underline{3} \text{ Fe}(\text{ClO}_3)_2 \rightarrow \underline{3} \text{ Fe} + \underline{2} \text{ Al}(\text{ClO}_3)_3$$

Reactants		Products	
Al	1 2	Al	1 2
Fe	1 3	Fe	1 3
ClO ₃	2 6	ClO ₃	3 6

⑥ ③

$$\underline{3} \text{ CaSO}_4 + \underline{2} \text{ Ag}_3\text{PO}_4 \rightarrow \underline{\hspace{1cm}} \text{ Ca}_3(\text{PO}_4)_2 + \underline{3} \text{ Ag}_2\text{SO}_4$$

Reactants		Products	
Ca	1 3	Ca	3
SO ₄	1 3	SO ₄	1 3
Ag	3 6	Ag	2 6
PO ₄	1 2	PO ₄	2

③ ⑥
⑧ ④