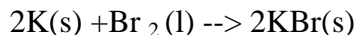


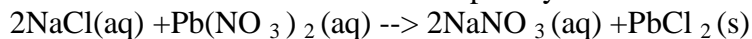
Oxidation/Reduction Worksheet Answers

1. Is this reaction a redox reaction? Explain your answer.



yes because oxidation numbers are changing

2. Is this reaction a redox reaction? Explain your answer.



no because oxidation numbers are not changing

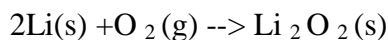
3. Which substance loses electrons and which substance gains electrons in this reaction? $2\text{Mg(s)} + \text{O}_2(\text{g}) \rightarrow 2\text{MgO}$

lose: Mg; gain: O

4. Which substance loses electrons and which substance gains electrons in this reaction? $16\text{Fe(s)} + 3\text{S}_8(\text{s}) \rightarrow 8\text{Fe}_2\text{S}_3(\text{s})$

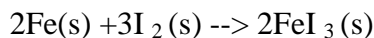
lose: Fe; gain: S

5. Which substance is oxidized and which substance is reduced in this reaction?



oxidized: Li; reduced: O

6. Which substance is oxidized and which substance is reduced in this reaction?



oxidized: Fe; reduced: I

7. Assign oxidation numbers to the atoms in each substance.

1. P_4
2. SO_3
3. SO_3^{2-}
4. $\text{Ca}_3(\text{PO}_3)_2$

1. $\text{P}: 0$
2. $\text{S}: +6; \text{O}: -2$
3. $\text{S}: +4; \text{O}: -2$
4. $\text{Ca}: +2; \text{P}: +3; \text{O}: -2$

15. Identify what is being oxidized and reduced in this redox reaction by assigning oxidation numbers to the atoms. $2\text{NO} + \text{Cl}_2 \rightarrow 2\text{NOCl}$

oxidized: N; reduced: Cl

16. Identify what is being oxidized and reduced in this redox reaction by assigning oxidation numbers to the atoms. $\text{Sr} + \text{SO}_3 \rightarrow \text{SrSO}_3$

oxidized: Sr; reduced: S