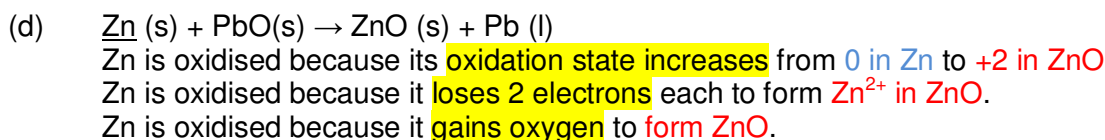
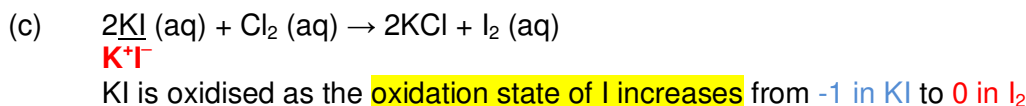
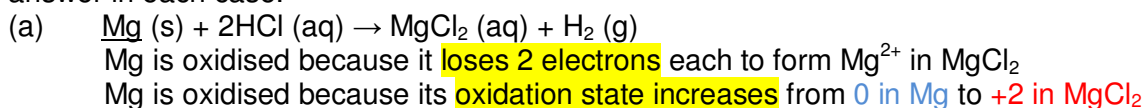
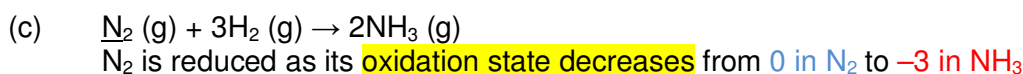
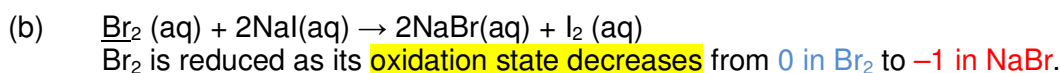
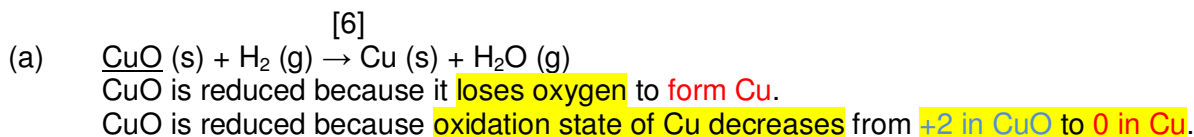


Name : _____ () Class: _____ Date : _____

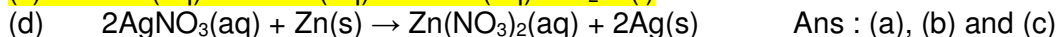
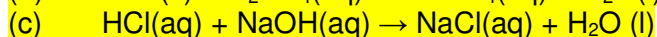
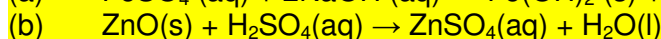
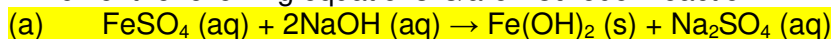
1. In each of the following reactions, underline the substance which has been **oxidised**. Justify your answer in each case.



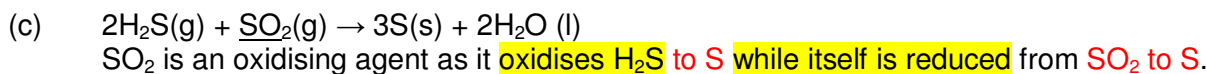
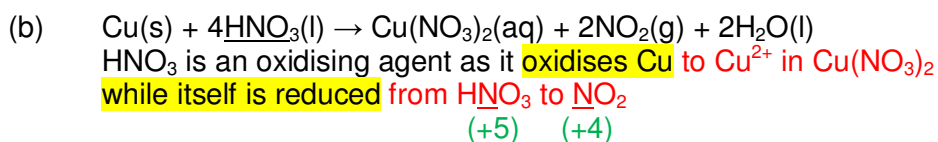
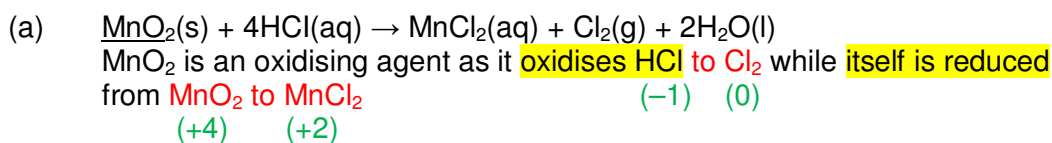
2. In each of the following reactions, underline the substance which has been **reduced**. Justify your answer.



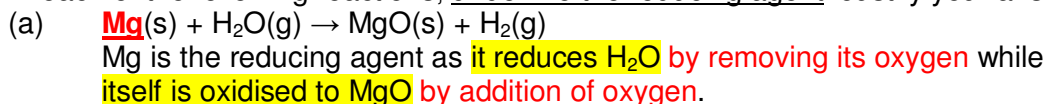
3. Which of the following equations is/are **not** redox reaction?



4. In each of the following reactions, underline the oxidising agent. Justify your answer.



5. In each of the following reactions, underline the reducing agent. Justify your answer.



(b) $\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightarrow 2\text{NH}_3(\text{g})$
H₂ is reducing agent as it reduces N₂ by decreasing its oxidation state from 0 in N₂ to -3 in NH₃ while itself is oxidised as its oxidation state changes from 0 in H₂ to +1 in NH₃.

(c) $4\text{NH}_3(\text{g}) + 3\text{O}_2(\text{g}) \rightarrow 2\text{N}_2(\text{g}) + 6\text{H}_2\text{O}(\text{g})$
NH₃ is the reducing agent as it reduces O₂ by decreasing its oxidation state from 0 in O₂ to -2 in H₂O while itself is oxidised as its oxidation state changes from -3 in NH₃ to 0 in N₂.
NH₃ is the reducing agent as it reduces O₂ by giving it hydrogen to form H₂O while itself is oxidised as it loses hydrogen to form N₂.

6. Calculate the oxidation number of each of the underlined elements in the following compounds.

- | | | | | | |
|--|------|--|------|--|------|
| (a) <u>K</u> MnO ₄ | (+7) | (b) Na ₂ <u>S</u> ₂ O ₇ | (+6) | (c) K ₂ <u>Cr</u> ₂ O ₇ | (+6) |
| (d) <u>Ag</u> ₂ SO ₄ | (+1) | (e) Na <u>H</u> | (-1) | (f) <u>Mn</u> O ₂ | (+4) |