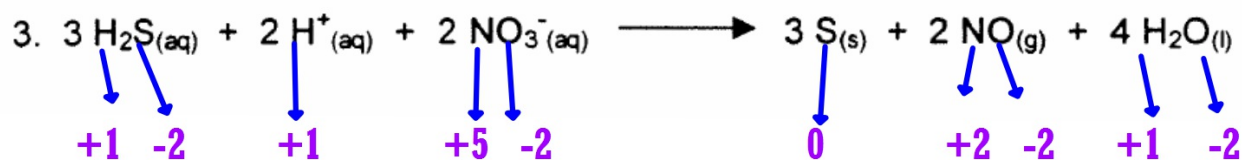
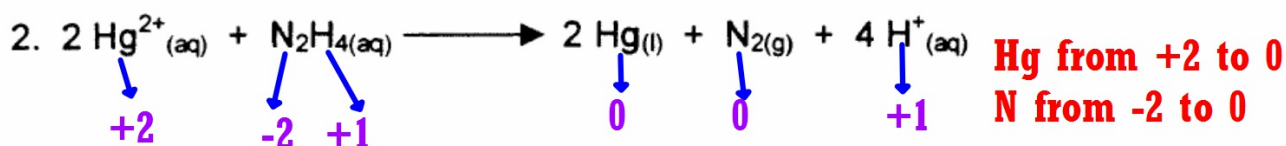
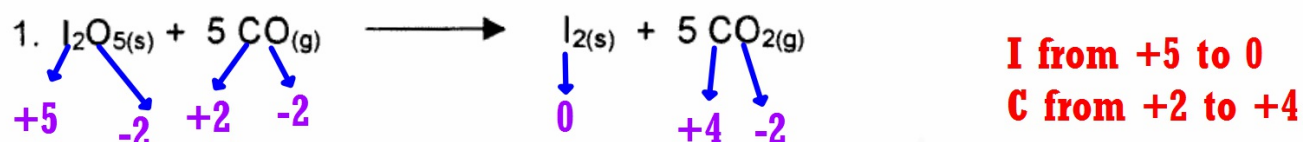
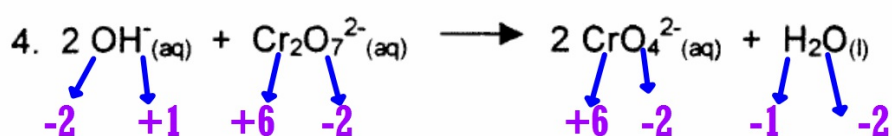


In each of the following balanced oxidation-reduction equations, identify those elements that undergo changes in oxidation number and indicate the magnitude of the change.

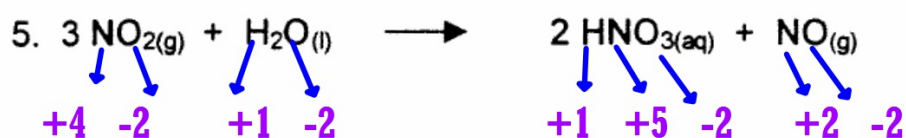


S from -2 to 0
N from +5 to +2

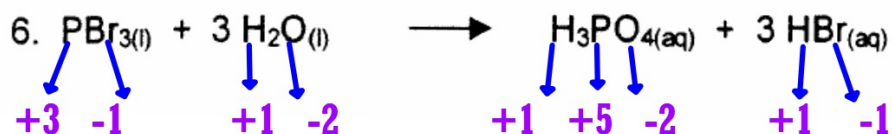
Indicate whether the following balanced equations involve oxidation-reduction. If they do, identify the elements that undergo changes in oxidation number.



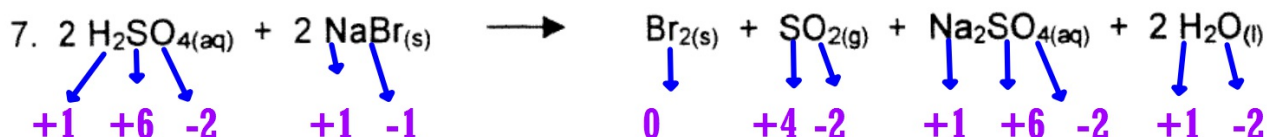
not a REDOX



N from +4 to +5
N from +4 to +2



not a REDOX



Br from -1 to 0
S from +6 to +4

8. Solid lead (II) sulfide reacts at high temperatures with oxygen in the air to form lead (II) oxide and sulfur dioxide.

(a) Write a balanced equation for this reaction.



(b) Which substances are reductants, and which are oxidants?

S goes from -2 to +4....it is oxidized **PbS is the reducing agent**
O goes from 0 to -2....it is reduced **O₂ is the oxidizing agent**

9. Hydrazine, N₂H₄, and dinitrogen tetroxide, form a self-igniting mixture that has been used as a rocket propellant. The reaction products are N₂ and H₂O

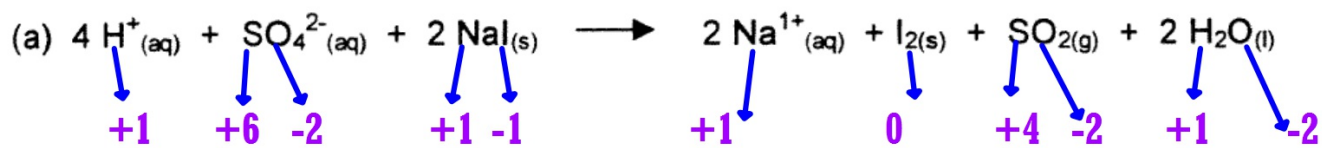
(a) Write a balanced equation for this reaction.



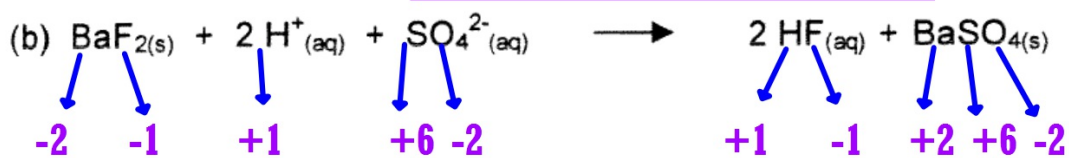
(b) Which substance serves as the reducing agent and which as the oxidizing agent?

N goes from -2 to 0....it is oxidized **N₂H₄ is the reducing agent**
N goes from +4 to 0...it is reduced **N₂O₄ is the oxidizing agent**

10. Sulfuric acid functions as an oxidizing agent in (a) and as an acid in (b).
How do you differentiate between these two functions?



S is reduced and I is oxidized



No change in charge...NOT A REDOX RXN

Identify the oxidizing agent and the reducing agent in each of the following balanced net ionic equations.

