

Rxn = reaction

CH 105 Supplemental Instruction

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Sessions: Monday, 1:15-2:15, EB 128

Wednesday, 3:30-4:30, EB 133

Office Hour: Thursday, 3:30-4:30, EB 242 (Academic Success Center)

1. Compare/contrast physical and chemical changes.

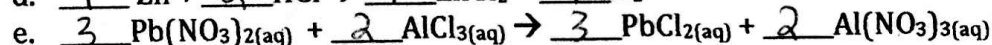
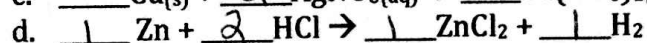
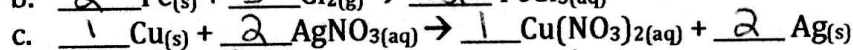
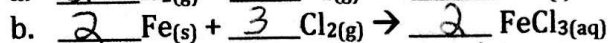
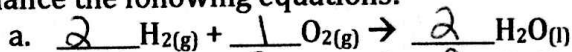
physical change alters form or state of matter and chemical change destroys one or more species and creates a new species.

2. What are three things that are conserved during a chemical reaction?

mass, charge, and energy.

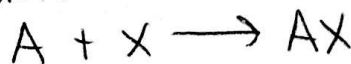
x chemical rxn's ~~are~~ are chemical changes. chemical equations describe them x

3. Balance the following equations:



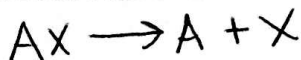
4. Describe a combination reaction. Are any of the reactions in number 3 combination reactions?

2 or more substances combine to form a single product.



~~rxn's~~ $A + B$ in # 3 are combination rxn's.

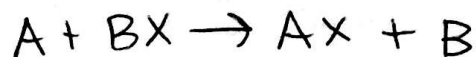
5. Describe a decomposition reaction. Are any reactions from question 3 decomposition reactions?



one reactant forming 2 or more products. opposite of combination.

None in # 3 are decomposition.

6. Write the general equation for a single-replacement redox reaction. Are any of the reactions in number 3 a single-replacement redox reaction?



C + D in # 3 are redox reactions.

7. Define the following:

- a. Oxidation: loss of electrons
- b. Reduction: gaining electrons
- c. Oxidizing agent: species that is reduced
- d. Reducing agent: species that is oxidized

LEO goes GER
Loss of electrons
Gain of electrons

GER
Gain of electrons
Reduction

8. There are two single replacement redox reactions in number 3. Can you label which species is reduced and which one is oxidized?

rxn C: Cu is oxidized, Ag is reduced

rxn D: Zn is oxidized, H is reduced.