

Chemistry Part II Test Review

1. List the five signs of a chemical change/reaction:

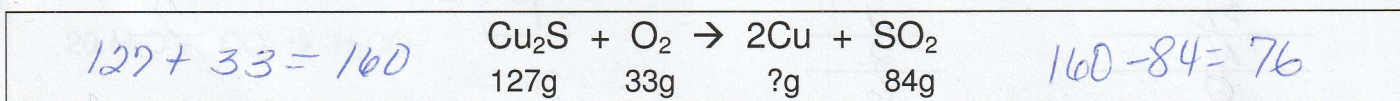
- a. Please Precipitate -
- b. Excuse Energy Change
- c. Coughs Color Change
- d. Sneezes Smell - Odor
- e. Burps Bubble - Gas

What is a precipitate? two liquids react & form a solid

2. Circle the chemical reactions.

- Cutting the grass dissolving a tablet in water (that creates bubbles) boiling water
- Baking a cake burning sugar tearing paper
- A nail rusting mixing Kool-Aid scraping rust off of a bike

3. What does the Law of Conservation of Mass (Matter) say? Matter can not be created nor destroyed; it simply transforms
- 4.



Using the reaction above – According to the Law of Conservation of Mass, what is the mass of Cu?
76 g

5. What information is found in a chemical formula? Reactant, Yield, Product
Coefficient, Symbols, Molecules

Count the atoms in each of the following formulas:

6. Na_2CrO_4

Element	# of Atoms	Total molecules	Total atoms
<u>Na</u>	<u>2</u>	<u>1</u>	<u>2</u>
<u>Cr</u>	<u>1</u>		
<u>O</u>	<u>4</u>		

7. 3CaCl_2

Element	# of Atoms	Total molecules	Total atoms
<u>Ca</u>	<u>3</u>	<u>3</u>	<u>9</u>
<u>Cl</u>	<u>6</u>		

8. K_2CO_3

Element	# of Atoms	Total molecules	Total atoms
<u>K</u>	<u>2</u>	<u>1</u>	<u>6</u>
<u>C</u>	<u>1</u>		
<u>O</u>	<u>3</u>		

9. $\text{NH}_4\text{C}_2\text{H}_3\text{O}_2$

Element	# of Atoms	Total molecules	Total atoms
<u>N</u>	<u>1</u>	<u>1</u>	<u>12</u>
<u>H</u>	<u>7</u>		
<u>C</u>	<u>2</u>		
<u>O</u>	<u>2</u>		

10. $\text{Pb}(\text{NO}_3)_2$

Element	# of Atoms	Total molecules	Total atoms
<u>Pb</u>	<u>1</u>	<u>1</u>	<u>9</u>
<u>N</u>	<u>2</u>		
<u>O</u>	<u>6</u>		

11. $\text{Ba}_3(\text{PO}_4)_2$

Element	# of Atoms	Total molecules	Total atoms
<u>Ba</u>	<u>3</u>	<u>1</u>	<u>13</u>
<u>P</u>	<u>2</u>		
<u>O</u>	<u>8</u>		

12. $4\text{Al}_2(\text{CO}_3)_3$

Element	# of Atoms	Total molecules	Total atoms
<u>Al</u>	<u>8</u>	<u>4</u>	<u>20</u>
<u>C</u>	<u>3</u>		
<u>O</u>	<u>9</u>		

13. What is the arrow sign called in a chemical equation? Yield

14. What does it mean? Chem Reaction has occurred

15. What are the substances on the left of the arrow in a chemical equation called?
Reactant

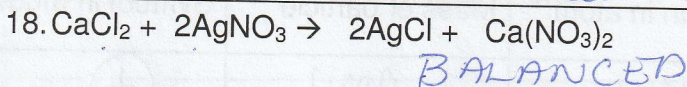
16. What are the substances on the right of the arrow in a chemical equation called?
Yield

All: answer the following questions about each reaction

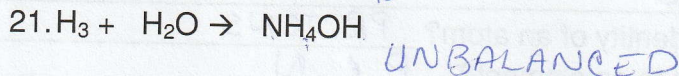
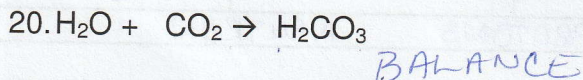
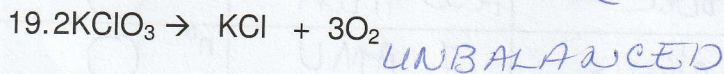
OL: Circle the following equations that follow the Law of Conservation of Matter/Mass. (balanced)

HONORS: If a reaction is not balanced, write the correct balanced equation. If it is not possible, write "not possible".

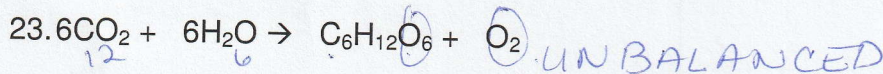
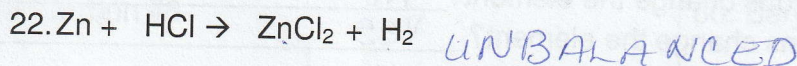
17. What is a balanced equation? What does balanced mean in this case? The total Atoms on the Reactant Side equal the Atoms on the product side



a. How many reactants are there in the equation above? 2

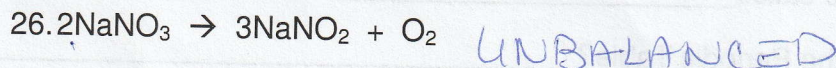
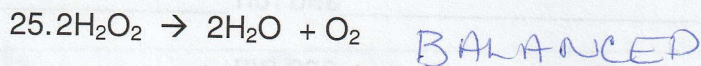
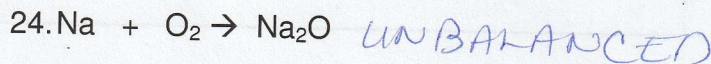


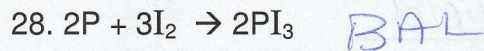
a. How many COMPOUNDS are in the equation above? 3



a. How many atoms of Oxygen are on the reactants side of the equation? 18

b. How many atoms of Oxygen are on the products side of the equation? 8





a. How many elements are there in the equation above? 2



a. How many molecules in the reactants of the equation above? 4

b. How many molecules in the products of the equation above? 5

Chemistry Part I Test Review

30. What are the three subatomic particles? Protons Neutrons Electrons

31. How do you find the number of protons in an atom? Atomic #

32. How do you find the number of electrons in an atom? Same As Electron

33. How do you find the number of neutrons in an atom? Mass - Protons = Neutrons

34. Complete the following table about the three subatomic particles.

Name	Charge	Location in atom	Mass of particle	Symbol in models
Proton	Positive	Nucleus	1 AMU	\oplus
Electrons	negative	Cloud	less than	\ominus
Neutrons	Neutral	Nucleus	1 AMU	n^0 \circ

35. Which subatomic particles are the heaviest? PROTONS NEUTRON

36. Which one is the lightest? ELECTRON

37. Which subatomic particle determines the identity of an atom? PROTONS

38. Which subatomic particles contribute mass to an element? P e N

39. The majority of the mass of an atom is found in its Nucleus

40. Does altering the number of electrons change the element? No

41. Does altering the number of protons change the element? YES

Define the following terms:

42. Element: _____

43. Compound: _____

44. Mixture: _____

45. Rows on the Periodic Table are called: _____ and run _____

46. Columns on the Periodic Table are called _____ and run _____

47. Where are the metals located on the Periodic Table? _____