Oxford High School

Chemistry

Chapter 1-3 Cumulative Review

1. Choose the term that best completes the second relationship

Female: Male proton:\_\_\_\_\_

1. Atom
2. Neutron
3. Electron
4. Quark
5. Cow: horse neutron:\_\_\_\_\_
6. Proton
7. Nucleus
8. Atom
9. Quark
10. Atom:proton house:\_\_\_\_\_
11. School
12. Nucleus
13. Planet
14. Brick
15. How could you change Rutherford’s experiment to determine relative sizes of different nuclei?
16. What is wrong with the statement “you can’t see atoms”?
17. Oxygen and hydrogen react violently to form water. If 48 g of oxygen react to form 54 g of water, how much hydrogen was used? Explain the answer.
18. How many significant digits are in the following?
19. 4.607 mg
20. 4.35 x 104 km
21. 0.00150 mL
22. 60.69 kg
23. Round each of the values in #7 to two significant digits.

A.

B.

C.

D.

1. What part of Dalton’s atomic theory supports the Law of Conservation of Mass?
2. A tank measures 55.0 cm x 1.10 cm x 80.0 cm. What is the volume of the tank?
3. The density of platinum is 22.5 g/cm3. What is the mass of 5.42 cm3 of platinum?
4. Classify each of the following as pure substance or mixture
5. Sulfur
6. Newspaper
7. Table salt
8. Oranges
9. Salt water
10. Classify each of the following from #13 as element, compounds, homogeneous mixture, or heterogeneous mixture.
11. Sulfur
12. Newspaper
13. Table salt
14. Oranges
15. Salt water
16. Classify each of the following as a physical or chemical change
17. Evaporation of water
18. A leaf changing color
19. Food spoiling
20. Cutting the grass
21. Dissolving sugar in ice tea
22. Soda going flat
23. Digestion of food
24. Lithium has two isotopes: Li-6 which is 7.5% abundant and Li-7 which is 92.5% abundant. If their respective atomic masses are 6.015 amu and 7.016 amu, what is the average atomic mass of lithium?