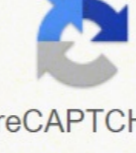


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Continue

NAME: _____

Chapter 6 Worksheet

Chem V20: Elementary Chemistry

Instructions: Answer the following questions. Make sure to show your work clearly to the correct number of significant figures.

- Calculate the molar mass of the following:
 - Fe
 - Acetaminophen (Tylenol), $C_8H_9NO_2$
 - Li_2CO_3 (Sometimes used in treatment for bipolar disorder.)
 - TNT, an explosive, $C_6H_5CH_3(NO_2)_3$

- How many moles correspond to each of the following?
 - 9.14×10^{23} atoms of cobalt.

- 7.11×10^{24} molecules of dinitrogen tetroxide.

- 3.84×10^{21} formula units of potassium chloride.

- How many grams are there in each of the following?
 - In 2.9 mol of lead.

Name: _____

Unit 3, Lesson 3 Quiz

What Are Some Physical Properties?

Write the letter of the definition on the line.

- | | |
|-----------------------------|---|
| _____ 1. matter | A. the amount of space an object takes up |
| _____ 2. physical property | B. a tool used to measure mass |
| _____ 3. mass | C. anything that takes up space |
| _____ 4. volume | D. a tool used to measure volume |
| _____ 5. temperature | E. the amount of matter in an object |
| _____ 6. texture | F. anything you can observe about an object using your senses |
| _____ 7. pan balance | G. a measure of how hot or cold something is |
| _____ 8. graduated cylinder | H. the way something feels |

Choose the correct answer.

9. Emma is studying the physical properties of a rock. She puts water in a cylinder, and then puts the rock into the cylinder. Which of the following properties is Emma measuring?

- A. mass B. temperature C. texture D. volume

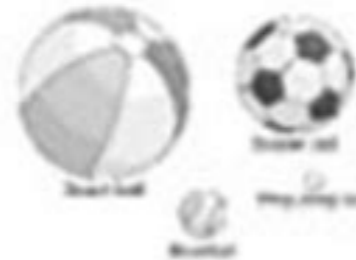


10. All the things you see around you have physical properties. Which of the following is a physical property?

- A. age B. color C. matter D. speed

11. Look at the balls in the picture. Which physical property is the same for all the balls?

- A. hardness B. shape C. size D. texture



12. Which one of the balls has the most mass?

- A. beach ball B. baseball C. soccer ball D. ping pong ball

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Periodic Table of the Elements

IA	IIA	IIIB	IVB	VB	VIB	VII B	VIII	IB	IIB	IIIA	IVA	VA	VIA	VIIA	VIIIA												
H	He											Li	Be	B	C	N	O	F	Ne								
[Lanthanide Series]												Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
[Actinide Series]												Rf	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn

Stoichiometry Worksheet #1

A balanced equation reveals mole ratios, which can be converted, as needed, into information in grams (or L or particles or kJ...), and used to solve stoichiometry problems.

Solve the following. Remember to write a balanced equation as part of your work, if it is not already provided.

- In the equation $2 KClO_3 \rightarrow 2 KCl + 3 O_2$, how many moles of oxygen are produced when 3.0 mol of $KClO_3$ decompose completely? (A: 4.5 mol O_2)

Answer: _____

- The Haber process for the production of ammonia is represented by the unbalanced equation $N_2 + H_2 \rightarrow NH_3$. The complete conversion of 9.0 mol of hydrogen to ammonia would require how many moles of N_2 ? (A: 3.0 mol N_2)

Balanced Equation:

Answer: _____

- How many moles of hydrogen gas are needed to react with 15.1 g of chlorine gas to produce hydrogen chloride gas? (A: 0.213 mol H_2)

Balanced Equation:

Answer: _____

- How many moles of calcium oxide are produced when 36.5 g of calcium react completely with oxygen gas? (A: 0.911 mol CaO)

Balanced Equation:

Answer: _____

- How many grams of oxygen gas are needed to react completely with 16.2 g of hydrogen gas, to produce water? (A: 128 g O_2)

Balanced Equation:

Answer: _____

