Chem	51,	Spring	20	16
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NAME KEY

75 pt

Exam 1 (Chapter 1)

Answer Questions 1-24 on your scantron. Each question is worth (2 pt ea). Some question require marking more than one answer.

<u>er</u> er Questions 1	-4			
mixture. C) homogeneous.	D) heterogeneous	E) compund	DE) element
Mark all ans.	wers that apply)			
C				
C 1	A			
E				
nents are rarely found of electricity. atures. temperature. h water. properties is N uctors of heat. ly with water. quids at room to	In combination volume of the combination of the com	vith other elements.		
oxygen, hydrogus, oxygen, hydrogs, oxygen, helius, oxygen, helium oxygen, helium	gen drogen um dium		nan bones and te	eeth?
element name	s with their symb	ols or symbols with name	es, whichever is	missing.
1	10.7	Silver	1/4/2	
Ba		BILLOI	1100	
Be		,001	Au	
		Janadiuw	Au V	
	mixture. C. .(Mark all ans	A sand the Periodic Table elements is an alkali metal? forine C) argon D) strongents are rarely found in combination was of electricity. In the same state of the same state o	mixture. C) homogeneous. D) heterogeneous (Mark all answers that apply) (C) (B) (C) (C) (C) (C) (C) (C	mixture. C) homogeneous. D) heterogeneous E) compund (Mark all answers that apply) (C) (C) (C) (C) (C) (C) (C) (

27 pt

1.3 Math Counts 10. Mark your scantron for each	one that is correct. Ma	ark all that apply.	
A) microsecond = 10^6 s	B) 1000 L = 1 ml	C) $l_{cm} = 0.01 \text{ m}$	D) 1000 km = 1 m
A) A gross of paper contains as A) A gross of paper contains B) One sheet of paper is 0.00 C) One sheet of paper measu D) A ream of medium weight	144 sheets. 042 inches thick. res 8.5 × 11 inches.	nds	
12. Which measurement is cons A) 21.14 mL B) 21 n		-	uncertainty of ±0.1 mL? E) 21.1400 mL
13. Perform the following mathe figures.		press your answer to the	he proper number of significant
(93.789 - 5.40) A) 1600 B) 1590		96 E) 1596.239	
14. How is this (105,006) writte A) 1.0 x 10 ⁵ B) 1.05006 x	n in correct scientific (c 10 ⁵ C) 1.1 x 10 ⁵		
A) 8.1% B) 7.5%	C) 19% D) 0.0		r, 150 g of salt, and 650 g of sugar?
1.4 Matter: The "Stuff" of Chem 16. Which of the following is/ar A) high compressibility B) relatively long distances C) fermation of homogeneous D) all of the above E) none of the above	e characteristics of gas between molecules	4011	eacting gas components
17. Which of the following state A) They are close together an B) They are far apart and rand	id in a fixed arrangeme domly arranged.		molecules) in a liquid?
C) They are close together an D) They are far apart and in a			
1.5 Measuring Matter (10 pt) The doctor orders a drug 25 mg per 1.0 cc. The pa	g to be administered on atient is a child and we	ce a day at 15 mg per lighs 5.5 lb. How many	kg body weight. The drug is supplied as mL of drug should be given?
?ML = 5.5	2.31	996 18 T	My x 1000 x 1 4
75	.5×13	-/,	N
7.	2046 X2	- 1/1	1 m L

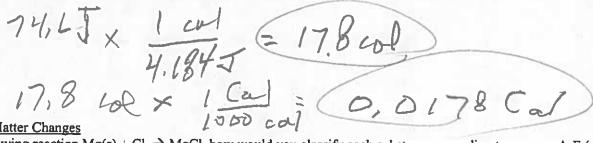
18. Which of the following is a mass unit?

- B) mL
- C) dm
- D) yd

19. Which of the following is the correct unit for length?

A) cg B) ml C) dm D) gal

(6 pt) Express the following quantity of energy, 74.6 joules, in cal and Cal.



1.6 How Matter Changes

In the following reaction Mg(s) + Cl₂ → MgCl₂ how would you classify each substance according to answers A-E (mark all that apply)

- A) Mixture
- B) Element
- C) Compound D) Homogeneous
- E) Heterogeneous

- 20. Cl₂(g)
- 21. MgCl₂(s)
- 22. Mg(s)

(3 pt) Balance the following chemical equation:

$$V_{\text{H}_2} + I_{\text{O}_2} \rightarrow V_{\text{H}_2\text{O}}$$

23, Which of the following is not a physical change?

- A) Boiling water
- B) Dissolving kool-aid
- C) Flying an egg
- D) Liquefying oxygen

24. An example of a chemical reaction is:

- A) TNT is explosive
- B) Gasoline is flammable
- C) Zinc reacts with hydrochloric acid to produce hydrogen gas
- D) All the above