

TOMS

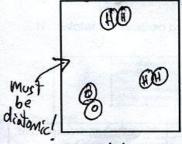


Will the test just look like these problems? No! It can have anything we learned. Everything we learn is important.
Review the original notes and worksheets.

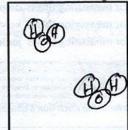
1. Write the seven elements that usually form diatomic molecules when they are not in a compound:

H2, N2, O2 F2, Cl2, B12, I2

Sketch a particle diagram representing a mixture of hydrogen and oxygen gases. Sketch a particle diagram for the compound formed when these gases react.



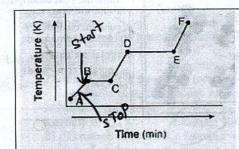
mixture



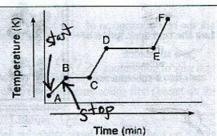
compound

- 3. Write 'intrinsic' next to any property that is intrinsic.
  - a) color intrinsic
  - b) mass —
  - c) density intrinsic
  - d) shape -

- e) melting point intrinsic



 Write start and write stop to indicate what will happen to hot iron when you drop it in cold water



 Write start and write stop to indicate what will happen <u>cold water</u> when hot metal is dropped into it.

hold		entering or leaving the object in
a) An ice cube is p	laced in a cup of hot	coffee LEAVING
An ice cube is place	ed in a cup of hot cof	offee ENTERING
b) A pot of hot tea	is sealed into a well-	insulated thermos LEAVING
<li>c) Some cold crea</li>	m is poured into a cup ross a bowl of hot sou	ip of hot coffee ENTERING
e) You jump into a		LEANING.
or each item below indicate wheth		
7. temp Can be measured by		
8. heat Can be measured by	holding water nearby and	then multiplying masswater x Cpwater x
ΔT <sub>water</sub>		
9. Assessment of the control of the	edize to explicing a granule	serves this pain epitosepa distant. X
10. temp one common unit for	r measuring this is degrees	s celsius
11. 1emp one common unit for	r measuring this is kelvins	(5)/I)
12. heat one common unit for	r measuring this is joules	
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la l	D. A.	Cara t
-	DAD I	A Tropped
18. Check the appropriate box to	describe each box's contents	67 1 30
Mark the best description of this box:  a substance mix of substances	& 8 & 8	Mark the best description of this box:  contains compounds contains elements contains compounds and elements
Mark the best description of this box:  substance  a mix of substances		Mark the best description of this box: contains compounds contains elements contains compounds and elements
18. What is Avogadro's principle?  Same 5126  CONTAIN SAW  OFMORE LESS. Partic	d gas vo e number of	particles (same pressure)

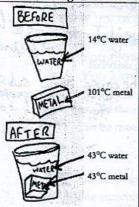
	-C	and los	14 a 50	6 s Tance	
19. W	hat is Proust's Law? If S	ove min	117	bstace u	. 11)
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, sale	1 ) 1	and the second second	eent by u	reight for	eachi
	THE REAL PROPERTY OF THE PERTY		of chance is bein	described.	-,0.
ext to ea	ch write physical change or chemical	to indicate which	type of change is och	La 50 001	, substance
13. P	ancakes cooking on a gride	dle Che	2 mical	because nei	w properties
	E SANTE		mia	forms A	Jew 60101 L
14. 6	Fross growing in a lawn		17-16		reflavor
15 4	A tire is inflated with air.	Phy	Sical		
10. 7	The is innered innered in	1	Licol.		
16. F	ood is digested in the stomo	och. The	mical ,		
12		automai Ph	usical		
17. V	Water is absorbed by a pap	er lower.	3100		
		PRODUCT WITH CASE BOTH HIS	OF HITOTHERIUM IS EVENEDIZ.	1997	
X to D	Magnesium — (Magnesis, district 1.738 (20°C); valence 2. Compounds	of magnetum have long	been known. Black recognized i	TARDICALITIES AN ENGINEERS IN	
	1755. It was isolated by Davy in 18	08, and prepared in coher	rent form by Husty in 1831. Ma	is in the form of magnesite,	
	dolomite, and other minerals. The m	etal is now principally obta	ained in the U.S. by electrolysis o	f fused magnesium chloride	In I the light to be
1	E derived from british made and and				14
The State of the S					14 11 11 11 11 11
PAR !	possess are used in any cents and storage patterns	s. The metal is priced at ab	out \$20/lb.	11	200
	Lutetium — (Lutetia, ancient name for Pari	s, sometimes called cassion (25°C): valence 3. In 1907	perum by the Germans), Lu; at. w J. Urbain described a process by	WILLIAM MINISTER 2	15
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## Show work for full credit.

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25. If 15 grams of metal were dropped into 11 grams of water calculate the following



a) Find 
$$\Delta T$$
 for the water.  $\Delta T = 43 - 14 = 29^{\circ} \text{ C}$ 

b) How many joules of heat entered the water?

Q=1333.42 joules

c) How many joules of heat heat left the metal? Must be the joules that extered water!

Same as the joules that extered water!

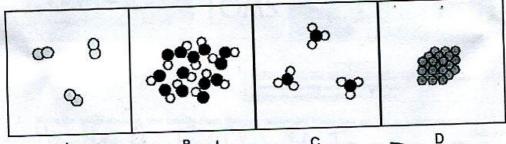
Careful! Use all metal numbers, no water numbers now:

Q = on Cart

d) Calculate the specific heat of the metal

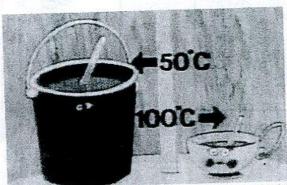
always show units in an answer \*

26. Consider the four containers below.



a. Which of these are mixtures? Bole pure substances? CABCD

b. Which contain only compounds? B, C only elements



27. Which has faster average vibration speed, water in the bucket on the left or water in the teacup on the right? The teacup (Because temperature vibration velocity)

28. Which has more joules, water in the bucket on the left or water in the teacup on the right?

The bucket (Because Q=mc DT