

Classify the following as a physical or chemical .change,Hammering a nail into a piece of wood

chemical change .a ☐

✓ physical change .b ☒

الإجابة الصحيحة هي: physical change

Which of the following is a heterogeneous .19
?mixture

Copper sulphate solution .a ☐

Sodium chloride solution .b ☐

Soda water .c ☐

✓ Starch solution .d ☒

الإجابة الصحيحة هي: Starch solution

Which of the following are .18
?homogeneous mixtures

Sugar water .a ☐

Vodka .b ☐

✓ All of these .c ☒

Vinegar .d ☐

الإجابة الصحيحة هي: All of these

.Round the number 3.46 to 2 significant figures

3.4 .a ☐

3.3 .b ☐

3.0 .c ☐

✓ 3.5 .d ☒

الإجابة الصحيحة هي: 3.5

Classify the following as a physical or chemical change, The formation of gas bubbles, a precipitate, or an order are all signs of this

- ☒ a. chemical change
- ☐ b. physical change

الإجابة الصحيحة هي: chemical change

The significant figures in 0.00051 are

- ☐ a. 5
- ☐ b. 3
- ☒ c. 2
- ☐ d. 26

الإجابة الصحيحة هي: 2

The number 0.005436 has how many significant figures

6 .a ☐

3 .b ☐

7 .c ☐

5 .d ☐

✓ 4 .e ☒

الإجابة الصحيحة هي: 4

Which of the following is a chemical
property

✓ combustion .a ☒

texture .b ☐

volume .c ☐

magnetism .d ☐

الإجابة الصحيحة هي: combustion

Classify the following as a physical or .chemical change,Cutting an apple in half

chemical change .a ☐

✓ physical change .b ☒

الإجابة الصحيحة هي: physical change

A sample of a mixture is in the liquid state. .7

It is clear and colorless. This sample is heated and you observe that the liquid in the mixture evaporates, leaving a white solid in the dish! How can you best describe the original sample of matter

none of these .a ☐

a solution .b ☐

a compound .c ☐

✓ homogeneous mixture .d ☒

الإجابة الصحيحة هي: homogeneous mixture

Nitric acid is a very important industrial chemical: 1.612×10^{10} pounds of it were produced in 1992. If the density of nitric acid is 12.53 pounds/gallon, what volume would be occupied by this quantity? (1 gallon = 3.7854 liters)

- a ☐ 1.287×10^9 liters
- b ☐ 7.646×10^{11} liters
- c ☒ 4.870×10^9 liters
- d ☐ 5.336×10^{10} liters
- e ☐ 8.388×10^9 liters

الإجابة الصحيحة هي: 4.870×10^9 liters

Classify the following as a physical or chemical change: You put a yellow liquid and a blue liquid together, and they become green.

a. ☐ chemical change

b. ☒ physical change

الإجابة الصحيحة هي: physical change

23. Is (pure) water an element or compound?

a. ☐ element

b. ☐ mixture

c. ☒ compound

الإجابة الصحيحة هي: compound

A+AKA-hypothesis is an assumption made before any research has been done. A theory is a principle formed to explain the things already shown in data

✓ True .a ☒

False .b ☐

الإجابة الصحيحة هي: True

سؤال 5

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

A cube of 1.2 inches on the side has a mass of 36 grams. What is the density in g/cm³

- a. 21 ☐
- ✓ b. 1.3 ☒
- c. 14 ☐
- d. 2.2 ☐
- e. .30 ☐

الإجابة الصحيحة هي: 1.3

سؤال 7

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

Chemical change when a substance change its form, like shape, size etc.+AKA- Physical change when a substance is reacted to another substance to make a new substance

☒ a. False

☐ b. True

الإجابة الصحيحة هي: False

سؤال 8

صحيح

درجة 1.00 من 1.00

علم هذا السؤال

Which of the following could indicate that a chemical change has taken place

a. formation of a precipitate ☐

b.  all of these ☒

c. energy release ☐

d. color change ☐

e. gas formation ☐

الإجابة الصحيحة هي: all of these

Using significant figures , correctly rounded the quotient $5.000 \text{ g} / 50.0 \text{ mL}$ is

- g/mL 0.10 .a ☐
- g/mL 0.1000 .b ☐
- ✓ g/mL 0.100 .c ☒
- g/mL 0.1 .d ☐

الإجابة الصحيحة هي: 0.100 g/mL

Classify the following as a physical or chemical change: You combine two clear liquids, and they turn cloudy white

✓ chemical change .a ☒

physical change .b ☐

الإجابة الصحيحة هي: chemical change

The number of significant figures in 6.02×10^{23} is

- a. 4 ☐
- b. 23 ☐
- c. 26 ☐
- d. 3 ☒

الإجابة الصحيحة هي: 3

Orange juice contains particles of solid (pulp) as well as liquid+ADs- it is not chemically pure. Because its composition is not uniform throughout, orange juice is+AKA-a homogeneous mixture.

True .a ☐

✓ False .b ☒

الإجابة الصحيحة هي: False

Is mercury an element, compound, .21
?or mixture

- mixture .a ☐
- compound .b ☐
- ✓ element .c ☒

الإجابة الصحيحة هي: element

Which is an example of a physical
property?

- ✓ boiling point .a ☒
- combustion .b ☐
- rusting .c ☐
- reactivity with water .d ☐

الإجابة الصحيحة هي: boiling point

Of the following name/symbol .1 combinations of elements, which one ?is WRONG

- nitrogen/N .a ☐
- sulfur/S .b ☐
- uranium/U .c ☐
- potassium/K .d ☐
- ✓ iron/I .e ☒

الإجابة الصحيحة هي: iron/I

A physical change such as combustion results in a substance with a new identity.

True .a ☐

✓ False .b ☒

الإجابة الصحيحة هي: False

Classify the following as a physical or chemical change. Letting the nail rust.

physical change .a ☐

✓ chemical change .b ☒

الإجابة الصحيحة هي: chemical change

Which answer includes all the following that are chemical changes and not physical changes? I. freezing of water, II. rusting of iron, III. dropping a piece of iron into hydrochloric acid (H_2 is produced), IV. burning a piece of wood, V. emission of light by a kerosene oil lamp

✓ II, III, IV, and V .a ☒

I, II, III, IV, and V .b ☐

II, III, and V .c ☐

III and IV .d ☐

II and V .e ☐

الإجابة الصحيحة هي: II, III, IV, and V

Classify the following as a physical or chemical change, Tearing a piece of paper into 100 pieces

chemical change .a ☐

✓ physical change .b ☒

الإجابة الصحيحة هي: physical change

Of the following symbol/name combinations of elements, which one is WRONG?

- U/uranium .a ☐
- C/carbon .b ☐
- ✓ B/barium .c ☒
- N/nitrogen .d ☐
- F/fluorine .e ☐

الإجابة الصحيحة هي: B/barium

The number 10.00 has how many
?significant figures

1 .a ☐

5 .b ☐

3 .c ☐

2 .d ☐

✓ 4 .e ☒

الإجابة الصحيحة هي: 4

👉 31. Iron is a

a. heterogeneous mixture ☐

b. homogeneous mixture ☐

✓ c. element ☒

d. compound ☐

الإجابة الصحيحة هي: element

24. What type of mixture is coffee?

- ✓ a. homogeneous mixture ☒
- b. heterogeneous mixture ☐

الإجابة الصحيحة هي: homogeneous mixture

Which of the following is not an
?extensive property

mass .a ☐

length .b ☐

volume .c ☐

✓ temperature .d ☒

الإجابة الصحيحة هي: temperature

How many significant figures should the
?answer have if we multiply: 5.60×3.2

1 .a ☐

✓ 2 .b ☒

4 .c ☐

3 .d ☐

الإجابة الصحيحة هي: 2

Aluminum oxide is a single,
.chemically+AKA-pure compound

✓ True .a ☒

False .b ☐

الإجابة الصحيحة هي: True

Choose the right answer with the appropriate number of significant figures
= $(17.48\text{g} - 10.48\text{g}) / 2.553\text{ mL}$

- a ☐ g/mL 2.7
- b ☐ g/mL 2.7419
- c ☐ g/mL 3
- d ☒ g/mL 2.74
- e ☐ g/mL 2.742

الإجابة الصحيحة هي: 2.74 g/mL

Classify the following as a physical or chemical change, Burning a piece of paper.

✓ chemical change .a ☒

Physical change .b ☐

الإجابة الصحيحة هي: chemical change

33. Wood is an _____?

- a. homogeneous mixture ☐
- b. element ☐
- c. compound ☐
- ✓ d. heterogeneous mixture ☒

الإجابة الصحيحة هي: heterogeneous mixture

3. The chemical symbol for manganese is .

✓ Mn .a ☒

Ma .b ☐

Ga .c ☐

Mg .d ☐

Mo .e ☐

الإجابة الصحيحة هي: Mn

20. Example of a homogeneous mixture is .

Sawdust and water .a ☐

✓ Tap water .b ☒

Sand and water .c ☐

Distilled water .d ☐

الإجابة الصحيحة هي: Tap water

The density of water is correctly expressed as

- a. ☐ 1 kg/mL
- b. ☐ 1 mg/ml
- c. ☐ 1 g/L
- d. ☒ 1 g/mL
- e. ☐ gas formation

الإجابة الصحيحة هي: 1 g/mL

How many significant figures should the answer have if we subtract $3.84 - 3.1$

2 .a ☐

4 .b ☐

✓ 1 .c ☒

3 .d ☐

الإجابة الصحيحة هي: 1

Classify the following as a physical or chemical change, Letting the cut apple sit out and it turns brown.

physical change .a ☐

✓ chemical change .b ☒

الإجابة الصحيحة هي: chemical change

A measured temperature on Fahrenheit scale is 200F. What will this reading be on the Celsius Scale?

a. 30°C ☐

b. 40°C ☐

c. 94°C ☐

d. 93.3°C ☒

الإجابة الصحيحة هي: 93.3°C

How many significant figures are in the
?number 0.00120

2 .a ☐

5 .b ☐

✓ 3 .c ☒

6 .d ☐

الإجابة الصحيحة هي: 3

Which out of the following is not a .7
?homogeneous mixture

Solution of sugar in water .a ☐

Brass (copper) .b ☐

✓ Smoke .c ☒

Air .d ☐

الإجابة الصحيحة هي: Smoke

?Of the following symbol/name combinations of elements, which one is WRONG .2

- ✓ B/barium .a ☒
- C/carbon .b ☐
- F/fluorine .c ☐
- N/nitrogen .d ☐
- U/uranium .e ☐

الإجابة الصحيحة هي: B/barium

.A chemical change such as boiling results in a substance with NO new identity

- True .a ☐
- ✓ False .b ☒

الإجابة الصحيحة هي: False

?In which of the following pairs, both properties are intensive

- ✓ Temperature, density .a ☒
- Pressure, volume .b ☐
- Pressure, temperature .c ☐
- Density, volume .d ☐

الإجابة الصحيحة هي: Temperature, density

?How would you write 3800000 to only 3 significant figures

- ✓ 3.80×10^6 .a ☒
- 3.8000×10^6 .b ☐
- 3.800×10^6 .c ☐
- 3.8×10^6 .d ☐

الإجابة الصحيحة هي: 3.80×10^6

Tea is a solution of compounds in water, so it is not chemically pure. It is usually separated from tea leaves by filtration. Because the composition of the solution is uniform throughout, it is+AKA-a heterogeneous mixture.

✓ False .a ☒

True .b ☐

الإجابة الصحيحة هي: False

👉 Vegetable soup is a .30

- homogeneous mixture .a ☐
- ✓ heterogeneous mixture .b ☒
- compound .c ☐
- element .d ☐

الإجابة الصحيحة هي: heterogeneous mixture

What is the volume of a 2.50 gram block of metal whose density is 6.72 grams per cubic centimeter

- a ☐ cubic centimeters 1.60
- b ☐ cubic centimeters 2.69
- c ☐ cubic centimeters 0.0595
- d ☒ cubic centimeters 0.372
- e ☐ cubic centimeters 16.8

الإجابة الصحيحة هي: 0.372 cubic centimeters

?Which is an example of a physical property

- a. ☐ ability to react with acid
- b. ☐ ability to react with oxygen
- c. ☐ flammability
- d. ☒ color

الإجابة الصحيحة هي: color

A element is a substance that is made up of more than one type of atom bonded together

- a. ☒ False
- b. ☐ True

الإجابة الصحيحة هي: False

.Selenium is one of the known+AKA-elements

- ✓ True .a ☒
- False .b ☐

الإجابة الصحيحة هي: True

👎 Carbon dioxide is a .29

- heterogeneous mixture .a ☐
- homogeneous mixture .b ☐
- ✓ compound .c ☒
- element .d ☐

الإجابة الصحيحة هي: compound

An unused flashbulb contains magnesium and oxygen. After use, the contents are changed to magnesium oxide but the total mass does not change. This observation can best be explained by the

- .a ☐ Avogadro's Law
- .b ☐ Law of Multiple Proportions
- ✓ .c ☒ Law of Conservation of Mass
- .d ☐ Law of Constant Composition

الإجابة الصحيحة هي: Law of Conservation of Mass.

Classify the following as a physical or chemical change, A reaction occurs, and the product is different from what you started with

physical .a ☐

✓ chemical change .b ☒

الإجابة الصحيحة هي: chemical change

?Which of these is an extensive property

✓ Weight .a ☒

Density .b ☐

Melting point .c ☐

Boiling point .d ☐

Which of the following pairs of properties includes one extensive property and one intensive property?

- a. length, radius ☐
- b. mass, volume ☐
- c. density, boiling point ☐
- d. none of these ☒

الإجابة الصحيحة هي: none of these

32. Concrete is a ?

- a. heterogeneous mixture ☒
- b. homogeneous mixture ☐
- c. compound ☐
- d. element ☐

Mixture: a combination of two or more elements or compounds which have not reacted to bond together+ADs- each part in .the mixture retains its own properties

✓ True .a ☒

False .b ☐

الإجابة الصحيحة هي: True

4. Identify the INCORRECT statement.

- a. Paint: a mixture ☐
- b. ✓ Tap water: a compound ☒
- c. Mercury in a barometer; an element ☐
- d. Helium in a balloon: an element ☐

الإجابة الصحيحة هي: Tap water: a compound

Compound is a substance that is made up of
only one type of atom

- a. True ☐
- b. ✓ False ☒

الإجابة الصحيحة هي: False

?which of the following is named incorrectly

HClO : hypochlorous acid .a ☐

H_2SO_4 : sulfuric acid .b ☐

H_2CO_2 : carbonous acid .c ☐

H_3PO_4 : phosphorous acid .d ☒

HClO_2 : chlorous acid .e ☐

?Which is NOT a physical property

reacts with bleach .a ☒

sinks in water .b ☐

density .c ☐

odor .d ☐

Which sample contains the largest number of
?atoms of H

- grams of H_2 4.0 .a ☒
- grams of PH_3 33.9 .b ☐
- grams of H_3PO_4 32.6 .c ☐
- grams of CH_4 8.0 .d ☐

A compound differs from a mixture in that the .5
:compound

- .can be separated by physical means .a ☐
- ✗ has two or more identities .b ☒
- has only one identity .c ☐
- is composed of only one kind of atom .d ☐

الإجابة الصحيحة هي: has only one identity

Solubility (dissolves): Chemical or Physical Property

Chemical Property .a ☐

✓ Physical Property .b ☒

الإجابة الصحيحة هي: Physical Property

Examples of chemical changes are burning, cooking, rusting, and rotting. Examples of physical changes are boiling

✓ True .a ☒

False .b ☐

الإجابة الصحيحة هي: True

Which of the following properties is an example of an EXTENSIVE property of a material?

- a. Density ☐
- b. Temperature ☐
- c. Mass ☒
- d. reactivity with oxygen ☐
- e. boiling point ☐

الإجابة الصحيحة هي: Mass