

**Rachel has an unknown sample of a radioisotope listed in the table. Using a special technique, she is able to measure the mass of just the unknown isotope as 104.8 kg at 12:02:00 P.M. At 4:11:00 P.M. on the same day, the mass of the unknown radioisotope is 13.1 kg. Which radioisotope is in the sample?**

Answer:

Barium-139

Explanation:

initial mass of the sample at 12:02:00 PM is given as

Mass of the sample at 4:11:00 PM is given as

so here since it is a sample of radioactive isotope so here we will say

now from above data we know that the time taken to reduce the mass is

now from above equation we will have

so here half life is given as

So here this isotope must be the one which will have half life of 1.4 hours

So it is nearly Barium-139

Barium-139 is the correct answer.

Flying east from the mouth of the Zambezi river you come to an island what is the name of the island and how is land used there

What were the settlers at Jamestown looking for? A) gold

B) tobacco

C) an all water route to Asia

D) religious freedom

After school, several students skateboard at the nearby park. Your best friend, Erwin, is a good skateboarder and happens to fall when attempting a fancy trick.

After falling, Erwin gets back up and starts repeating the trick over and over again. How would a cognitive psychologist interpret Erwin getting back up and repeating the trick many times? Erwin has seen other people fall and knows they get back up, so he does the same thing and models their repetitive behavior.

Erwin is motivated to learn the trick to perfection and knows that practice makes perfect. Erwin has repressed desires and, through introspection, he knows that he will only get better if he keeps trying until he skateboards perfectly

In order to customize the status bar, you must A) You cannot add or subtract icons the status bar

B) Go to the home tab

C) Right Click to the left of the status bar

D) click on the icon with the horizontal bars

Which is an example of reflection? two waves combining to form a larger wave

a wave bending as it passes through a narrow opening

an ocean wave bending as it approaches the shore

a wave bouncing off the side of a pool

List ten importance of conservation of wildlife?

Saul answered a question incorrectly in class, and another student made fun of his response. Saul feels embarrassed and upset. What would be the most effective strategy for Saul to cope with this stressful situation? Take a deep breath and laugh it off

Lash out at his classmate in anger

Buy an extra dessert at lunch to make himself feel better

Go shopping to take his mind off the situation

A household refrigerator runs one-fourth of the time and removes heat from the food compartment at an average rate of 800 kJ/h. If the COP of the refrigerator is 2.2, determine the power the refrigerator draws when running.

In a car engine, energy is converted in a number of ways to make the car run. Identify the correct order of the energy conversion in the engine of the car by this path: The ignition switch is turned, which sends a signal to start the car by fuel burning. This gets the engine going, which produces heat. When the driver puts

the car in drive and pushes the accelerator, the car starts moving.

chemical --> mechanical --> heat --> electrical

mechanical --> electrical --> heat --> chemical

electrical --> chemical --> thermal --> mechanical

heat --> chemical --> mechanical --> electrical

\_\_\_\_\_ is a memory task in which the person has to retrieve previously learned information; \_\_\_\_\_ is a memory task in which the person has to identify learned items.

In the following sentence, identify the part of speech of the italicized word. Catching fish is one of the oldest pastimes. A. Pronoun B. Adjective C. Noun D. Verb  
Plzzzzzz help...will give BRAINLIEST to right answer!!

$$-4/5 \div (-7/6) = ?$$

Which supernatural element is emphasized

- A. ghost
- B. Goblin
- C. Angel
- D. Prophecy

How many petals does lang cempasúchil have?

If you have 2 rooms with the same humidity and 1 room is cooler than the other why

Cherise is babysitting for her 2-year-old nephew for the first time. While her back is turned, he touches his index finger to the pan she just took out of the oven.

He pulls his finger away quickly, and a few seconds later begins to scream. Why is his screaming delayed in comparison with pulling away his finger?

Which geographic feature helped isolate Japan? a) plateaus

- b) water
- c) valleys
- d) volcanoes

Stan drove 3300 m to the grocery store. The tires on his truck are 2.2 m in circumference. How many rotations did each tire make on Stan's drive?

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