

When considering nomenclature for scientific names, what is the difference between the two primates, *Homo sapiens* and *Homo erectus*?

- A. One is a primate but the other is not.
- B. They are animals of a different kingdom.
- C. They are animals of a different order.
- D.** They are animals of a different species.
- E. They are animals of a different genus.

Proteins are largely responsible for the traits of living organisms while \_\_\_\_\_ provides the blueprint for the organization, development and function of living things.

- A.** DNA
- B. protein
- C. carbohydrate
- D. lipid
- E. metabolite

In the periodic table, the value that refers to the number of protons and neutrons is:

- A.** atomic mass.
- B. molecular molarity.
- C. atomic molarity.
- D. molecular number.

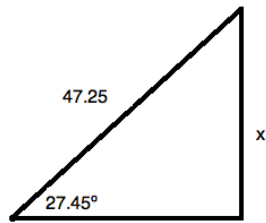
Solve  $\frac{x+2}{5} \geq \frac{x-2}{5}$

- A. All real numbers**
- B.  $x \geq 2$
- C.  $x \leq 2$
- D. Empty set

$1 + \tan^2 x =$

- A.  $\cos^2 x$
- B.  $\cot^2 x$
- C.  $\csc^2 x$
- D.  $\sec^2 x$**

1. Find  $x$



a) 38.52

**b) 21.78**

c) 41.93

d) 31.31

What would be the displacement of a particle moving in a circular path of radius  $r$  after a displacement of half a circle?

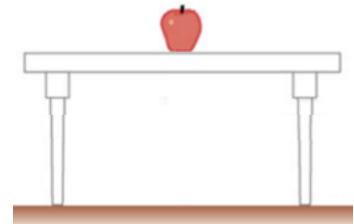
- a.  $2\pi r$
- b.  $\pi r$
- c.  $2r$**
- d. Zero

A stone is thrown over the edge of a cliff that is 50 meters high. It is thrown horizontally with an initial velocity of 15.0 m/s. At what time after the stone was thrown it strikes the ground at the bottom of the cliff.

- a. 102 seconds
- b. 0.33 seconds
- c. 3.19 seconds
- d. 3.33 seconds**

An apple sits at rest on a table, in equilibrium. If the weight ( $W$ ) of the apple is action, the reaction is the:

- a. Force of the apple exerted on the table
- b. Force of the apple exerted on the Earth**
- c. Force of the table on the apple
- d. Force of the Earth on the apple



What is the molecular weight of  $\text{KrF}_2$  in **amu**?

A. 122.8

B. 54

C. 74

D. 103.8

Which one of the following **element** symbols and names is **not correctly matched**?

A. P, potassium

B. Fe, iron

C. Cu, copper

D. Br, bromine

How many **electrons** are there in  $^{32}\text{S}^{2-}$ ?

A. 2 electrons

B. 16 electrons

C. 34 electrons

D. **18 electrons**