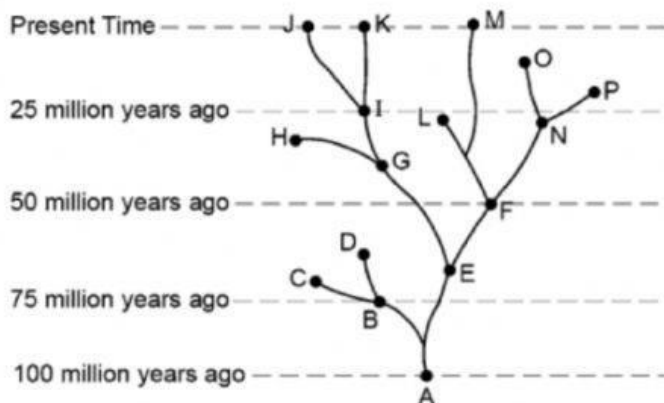


A phylogenetic tree is similar to cladograms, except, phylogenetic trees have a timeline. If the branch does not reach the current time, which means that organism went extinct.

The diagram illustrates a proposed evolutionary path of certain organisms, based on the theory of evolution.



Which organism is the ancestor of all of the other organisms on this tree? \_\_\_\_\_

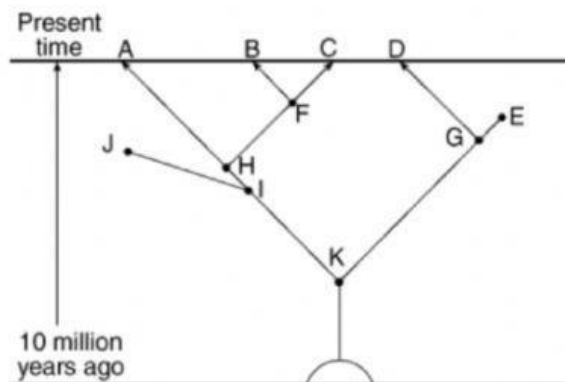
Which organisms (species) are still on Earth presently? \_\_\_\_\_

Approximately, when did species A have a speciation event? \_\_\_\_\_ which organisms resulted from this event? \_\_\_\_\_

Which organisms went extinct? \_\_\_\_\_ how do you know?

Which organism is the most recent common ancestor of J, K and M? \_\_\_\_\_

When did the speciation event occur that gave rise to organisms J and K? \_\_\_\_\_

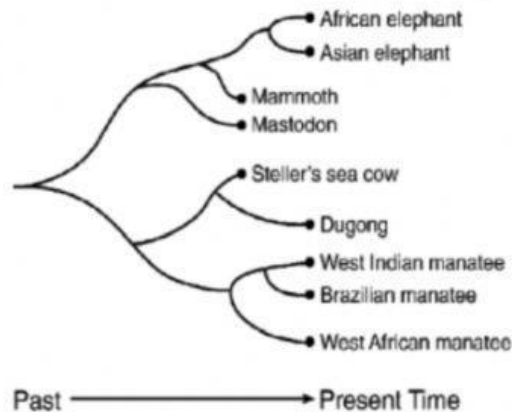


Which species is the common ancestor of all of the other species? \_\_\_\_\_

Explain why species B and C are more related than species A and C. \_\_\_\_\_

\_\_\_\_\_

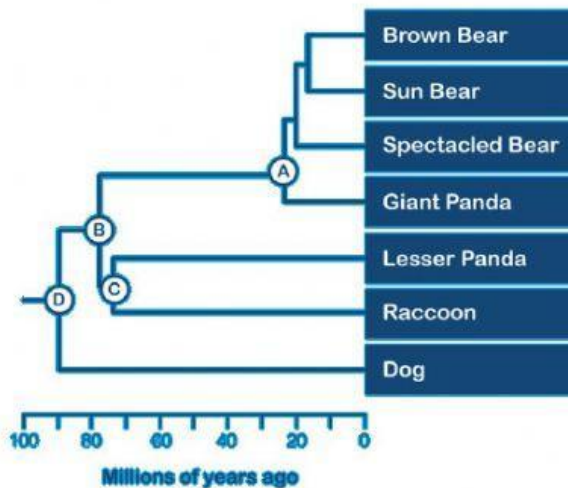
The relationship of some mammals is indicated in the diagram.



True or False: The West Indian manatee is more related to the Brazilian manatee than the West African manatee.

True or False: The Steller sea cow shares its most recent common ancestor with the mastodon.

True or False: Steller's sea cow is still alive during present time.



True or False: The most recent common ancestor both the sun bear and the lesser panda is node C.

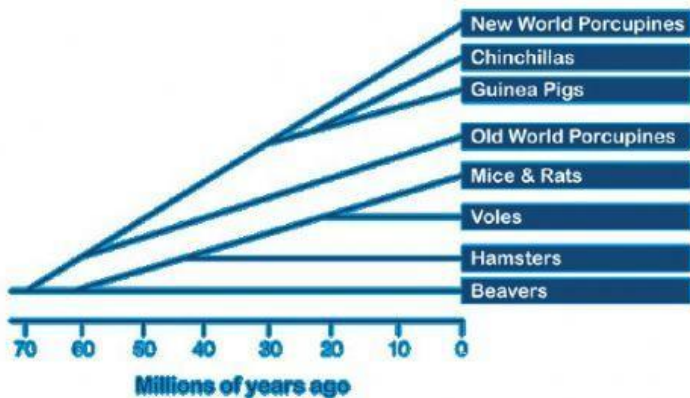
True or False: The sun bears are more genetically similar to the brown bears than the spectacled bear.

True or False: Raccoons are more genetically similar to dogs than they are to the lesser panda.

True or False: sun bears are more genetically similar to spectacled bears than they are to brown bears.

True or False: Spectacled bears are more genetically similar to the lesser panda than they are to the giant panda.

What organism is least related to the others?



According to the phylogenetic tree shown, which organism is most closely related to the guinea pig?

Support your claim: