

Name _____

Weighing Dinosaurs Questions

1. If a giant was built proportionally to you yet he or she was twice as tall as you, would the giant weigh twice as much, four times as much, or eight times as much as you?
2. Density is equal to _____ divided by _____.
3. The density of water is _____ g / cm³ (grams per centimeters cubed).
4. Why does ice float in water? If a block of ice was as large as a mountain would it still float?
5. The density of most vertebrates - fish, amphibians, reptiles, and mammals - is about the same as the density of water. This is because the higher density muscle, bones, and organs are balanced by the lower density _____ in either the swim bladders or lungs.
6. Birds can float on water because there is a large amount of air inside their unique and extremely large respiratory system that lowers the density of a bird's body. With this special respiratory system, birds can extract much more oxygen from the atmosphere than other vertebrates their size. What are birds doing that they need so much oxygen?
7. An object submerged in a fluid will feel an upward buoyant _____ equal to the weight of the fluid displaced by the object.
8. How is it possible for whales to grow so much larger than elephants?
9. Is the African Elephant heavier than any of the dinosaurs weighed in the experiment? List the dinosaurs - Ankylosaurus, Brachiosaurus, T-Rex, Triceratops - from smallest to largest.
10. A loaded eighteen wheel tractor-trailer has a mass of nearly 40 US tons (36 metric tons). Is the mass of a Brachiosaurus less or more than a loaded tractor-trailer?