

Name _____

Date _____

The Worst

An "Uncle Bob" Investigation

Please read "The Worst" [p.130, *Where the Sidewalk Ends* by Shel Silverstein].

Other sources:

http://www.pbs.org/wgbh/nova/teachers/viewing/3209_02_nsn.html

<http://microlnx.com/dinosaurs/SkeletalScaling.html>

The Glurpy Slurpy Skakagrall weighs 3000 pounds and is 9 feet tall. He'd be a star in professional football, but according to a formula created by Doctor Greg Erickson (see other sources above), this creature would need 23.3% of that weight to be bone in order to support its body under the strain of gravity.

1. How much would the Skakagrall's bones weigh? _____
2. Let's compare the Skakagrall to a 9-foot tall cylinder full of 3000 pounds of water. Water weighs 62.5 pounds per cubic foot. What is the diameter of the cylinder? Do you think the Skakagrall is wider than that? State your reason(s) why or why not.
3. Let's compare the Skakagrall to an elephant. Find the weight of a typical full-grown elephant. Which is heavier, and what is your source for that information. Dr. Erickson states that an elephant would need 27% of its weight to be bones. How much weight is that?
4. The dinosaur T-rex and the elephant are two of the biggest animals to have walked on the Earth. One a reptile and the other a mammal, they seem to represent a limit of how large animals that roam the Earth can be, and yet the blue whale at 195 tons needs less than 10% of its weight to be bones. How many pounds of bones is that?
5. Give a reason why the blue whale survive with such relatively small bones.