

OXBOW AT HOME

Animal Care Math

Part 1: Tortoises

Tortoises are reptiles, and are cold-blooded or ectothermic. Most reptiles do not eat every day, but tortoises LOVE to eat. They only like their vegetables and salads, though, which makes them herbivores. Oxbow Meadows has three African Sulcata Tortoises, also known as African Spurred Tortoises. Our Tortoises are named Gilligan, Bertha, and Norma. Each Tortoise is a different size, and each tortoise weighs a different amount. This tortoise species can eat between 1% - 5% of their body weight in leafy vegetables each day! Can you help our Zoo Keeper determine how much to feed the tortoises from today's video?

<https://www.facebook.com/CSUOxbowMeadows/videos/526110204978415/>

Gilligan weighs 35 pounds

Bertha weighs 20 pounds

Norma weighs 10 pounds

Problem 1:

How many pounds of collard greens does each Tortoise need to eat per day if they need to eat 5% (or 1/20) of their body weight?

Gilligan	Bertha	Norma
$35 \times .05 = 1.75 \text{ lbs}$	$20 \times .05 = 1 \text{ lb}$	$10 \times .05 = .5 \text{ lb}$

Did your student notice Norma's diet is *half* of Bertha's diet?

Problem 2:

How many pounds of collard greens would each tortoise eat per week?

Gilligan	Bertha	Norma
$1.75 \times 7 = 12.25 \text{ lbs}$	$1 \times 7 = 7 \text{ lbs}$	$0.5 \times 7 = 3.5 \text{ lbs}$

Challenge your student to use addition to determine the combined amount all three eat per day and per week as an extension.

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Problem 3:

Tortoises need a balanced, varied diet just like us to stay healthy. Most of the food that we buy in our grocery stores are weighed in ounces. Let's convert our answers from the problems above into ounces. Then, select from the vegetables below to make a diet that differs each day for Gilligan, Bertha, or Norma. Don't forget to include some collard greens in their diet! (If you'd like, create a diet for all three).

Note: 1 pound = 16 ounces



tomato
2 oz.



turnip greens
4 oz.



cucumber
8 oz.



bell pepper.
2 oz.



carrot
1 oz.

Per Day

Gilligan: $1.75 \times 16 = 28$ ounces

Bertha: $1 \times 16 = 16$ ounces

Norma: $0.5 \times 16 = 8$ ounces

Per Week

$28 \text{ ounces} \times 7 \text{ days} = 196$ ounces

$16 \text{ ounces} \times 7 \text{ days} = 112$ ounces

$8 \text{ ounces} \times 7 \text{ days} = 56$ ounces

Answers will vary. Check your student's math.

Problem 4:

How much more do you weigh than each tortoise? (Weigh yourself at home and then subtract each tortoise's weight from your weight). How much would you weigh in ounces?

Example: If your student weighs 82 pounds, they weigh 47 pounds more than Gilligan, 62 more pounds than Bertha, and 72 more pounds than Norma.

Answers will vary. Check your student's math.

Problem 5:

If you were a tortoise, how much would you eat per day? Per week? Make yourself a "tortoise diet" using your own body weight.

Example: If your student weighs 82 pounds:

$0.05 \times 82 \text{ pounds} = 4.1$ pounds per day

$4.1 \text{ pounds} \times 7 = 28.7$ pounds per week

Answers will vary for "tortoise diet." Check your student's math.

Stay tuned for Wildlife Wednesdays on Oxbow Meadow's Facebook Page @CSUOxbowMeadows