



Veterinary Assistant Calculations

Animals at the zoo need regular health care just like humans. The veterinarian at Dickerson Park Zoo examines every animal at least once a year. Some of the animals need assistance more often. Below is an example of a situation the veterinarian may work with on any given day.

The zookeeper reports to the veterinarian the female African lion seems to be limping more than normal. The veterinarian may chart the problem something like this:

- **Species:** African lion
- **Age:** 18 years old
- **Weight:** 128 kilograms
- **Presentation:** Report by keeper – female lion has been limping on her left front foot more than normal.

After the veterinarian observes the animal and checks her chart, she decides on the diagnosis.

- **Diagnosis:** This animal has arthritis in her left wrist.

The veterinarian can then prescribe medications to help the animal feel better. The veterinarian gives the zookeepers the medicine to mix with the lion’s food.

This is what the label says:

- **Treatment:** Give 1.17mg/kg of Tramadole tablets by mouth once a day for 30 days.

The **concentration** of Tramadole is 50 mg.

We need you to help figure out how many pills to give to the keepers. Here are some formulas to help you:

Body Weight x Dosage (mg/kg) ÷ Concentration of Drug = Volume of drug (or dose)

So, _____ Wt. of animal (in kg) x _____ Dosage (mg/kg) ÷ _____ mg = _____ # of tablets

Then, we need to know the total number of tablets to give to the keepers.

_____ # of tablets per day x 30 days = _____ tablets to be dispensed.

