

Zoo Keeper Mathematics

Complete the following exercises to discover how Zoo Keepers use mathematics in their work at ZSL Whipsnade Zoo.

Exercise One



The seven lions at ZSL Whipsnade Zoo are due their annual vaccinations.

The recommended dose is worked out as 0.15ml/kg.

Calculate the dosage of vaccination each lion should receive:

Animal	Weight	Dosage (ml)
Spike	200 kg	
Mashaka-Lila	160 kg	
Kachanga	170 kg	
Max	220 kg	
Tato	180 kg	
Kato	175 kg	
Kia	120 kg	

The vaccinations come in vials of 5ml. For hygiene, a separate vial must be used for each animal and disposed once opened.

How many vials should the keeper order from the vet?

Exercise Two



Karishma the elephant gave birth to a healthy calf, Max, in October 2013, weighing a whopping 140 kg.

An elephant calf grows fast and will gain approximately 0.9 kg in weight per day in their first year of life.

How much would you expect Max to weigh on his first birthday (2014 is not a leap year)?

ZSL Whipsnade Zoo houses a breeding group of endangered Asian Elephants. It is important that keepers keep records of the animals in a studbook to monitor the population of breeding animals in zoos around the world.

Elephant	Sex	Date of Birth
Emmett	M	10.07.91
Mya	F	04.03.82
Kaylee	F	20.07.82
Lucha	F	24.05.82
Azizah	F	02.04.84
Karishma	F	27.08.98
Donna	F	23.07.09
George	M	12.04.10
Scott	M	18.10.11
Max	M	12.10.13

What is the male : female ratio of elephants at ZSL Whipsnade Zoo?

What is the mean age of the elephant herd at ZSL Whipsnade Zoo?