

Zoo Keeper Mathematics

Complete the following exercises to discover how Zoo Keepers use maths in their work at ZSL's Zoos.

Exercise One



Four of the 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)
Max	220 kg	
Tato	180 kg	
Neo	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 Asian elephant gave birth to calf Elizabeth in June 2016, who weighed a whopping 130kg when she was born.

Elephant calves grow fast and gain approximately 0.9 kg in weight per day in their first year of life.

How much would you have expected Elizabeth to weigh on her first birthday?

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
Ming Jung	M	16.04.07
Kaylee	F	20.07.82
Lucha	F	24.05.82
Karishma	F	27.08.98
Donna	F	23.07.09
Elizabeth	F	10.06.16

What is the male : female ratio of elephants above?

What is the mean age of the elephant herd shown above?

Zoo Keeper Mathematics - ANSWERS

Complete the following exercises to discover how Zoo Keepers use maths in their work at ZSL's Zoos.

Exercise One



Four of the 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)
Max	220 kg	33
Tato	180 kg	27
Neo	175 kg	26.25
Kia	120 kg	18

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?

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Exercise Two



Karishma the Asian elephant gave birth to calf Elizabeth in June 2016, who weighed a whopping 130kg when she was born.

Elephant calves grow fast and gain approximately 0.9 kg in weight per day in their first year of life.

How much would you have expected Elizabeth to weigh on her first birthday?

458.5kg

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.

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Lucha	F	24.05.82
Karishma	F	27.08.98
Donna	F	23.07.09
Elizabeth	F	10.06.16

What is the male : female ratio of elephants above?

1:5

What is the mean age of the elephant herd shown above?

As of the end of April 2020: 20.2 years old