

Ostrich Llama Count
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Problem statement:

Raul counted 47 heads. Esteban counted 122 legs. How many of the animals are llamas and how many of the animals are ostriches?

Process:

OSTRICH	LLAMA	(Process)	# LEGS
$47 \times 2 = 94$	$0 \times 4 = 0$	$94 + 0$	94
$46 \times 2 = 92$	$1 \times 4 = 4$	$92 + 4$	96
$45 \times 2 = 90$	$2 \times 4 = 8$	$90 + 8$	98
$44 \times 2 = 88$	$3 \times 4 = 12$	$88 + 12$	100
$43 \times 2 = 86$	$4 \times 4 = 16$	$86 + 16$	102
$42 \times 2 = 84$	$5 \times 4 = 20$	$84 + 20$	104
$41 \times 2 = 82$	$6 \times 4 = 24$	$82 + 24$	106
$40 \times 2 = 80$	$7 \times 4 = 28$	$80 + 28$	108
$39 \times 2 = 78$	$8 \times 4 = 32$	$78 + 32$	110
$38 \times 2 = 76$	$9 \times 4 = 36$	$76 + 36$	112
$37 \times 2 = 74$	$10 \times 4 = 40$	$74 + 40$	114
$36 \times 2 = 72$	$11 \times 4 = 44$	$72 + 44$	116
$35 \times 2 = 70$	$12 \times 4 = 48$	$70 + 48$	118
$34 \times 2 = 68$	$13 \times 4 = 52$	$68 + 52$	120
$33 \times 2 = 66$	$14 \times 4 = 56$	$66 + 56$	122

Process (Cont'd):

I started with the Ostriches because they have two legs. I multiplied 47 times 2 which equals 94. Since this obviously was less than 122 legs, I started doing a process of addition and worked my way up until I got the correct answer, which was 122 legs. My mother assisted me with this and I made no assumptions.

Solution:

Based on the math and by using the chart, I was able to determine there were 33 llamas and 14 ostriches.

Evaluation:

This was a simple way, I thought, to figure out the answer to the question that the Uncle asked of Raul and Esteban. I'm sure there are other, more "mathematical" ways to do this. I would rate this problem a 2 out of 3 because it was kind of easy but there were more challenging ways to do it.