

# Zios and Zepts

Ratio of Zios: Zepts is 3:7

$$\text{So } Z_{\text{ios}} = \frac{3}{10}$$
$$Z_{\text{epts}} = \frac{7}{10}$$

Then:

We write all the multiples of 3 and 7 upto 52

3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, ...

7: 7, 14, 21, 28, 35, 42, 49, ...

Next:

We draw a graph to show we are subtracting all multiple of 7 by 52 (we know Nico counted 52 legs) to see if this or these answers is a multiple of 3

Number to test	52-number	Test if number is a multiple of 3	Answer
7	$52 - 7 = 45$	$45 \div 3 = 15 \checkmark$	1 zept 15 zios
14	$52 - 14 = 38$	$38 \div 3 = 12.66 \times$	—
21	$52 - 21 = 31$	$31 \div 3 = 10.33 \times$	—
28	$52 - 28 = 24$	$24 \div 3 = 8 \checkmark$	4 zept 8 zios
35	$52 - 35 = 17$	$17 \div 3 = 5.66 \times$	—
42	$52 - 42 = 10$	$10 \div 3 = 3.33 \times$	—
49	$52 - 49 = 3$	$3 \div 3 = 1 \checkmark$	7 zept 1 zio

Answers:

As the numbers of zios and zepts is more than 1 so there must be:

4 Zepts and 8 zios