

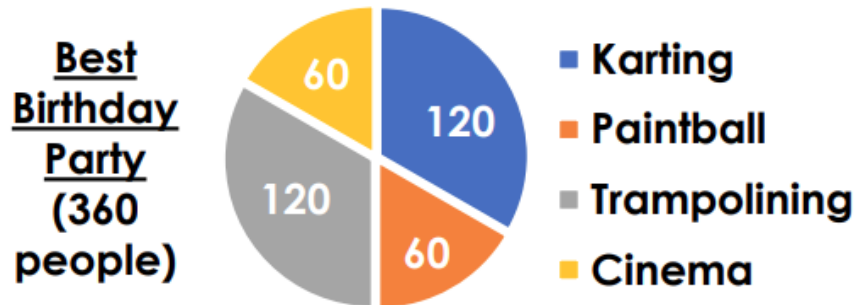
18.03.24

# Number Nest Weekly Challenge



## Warm up

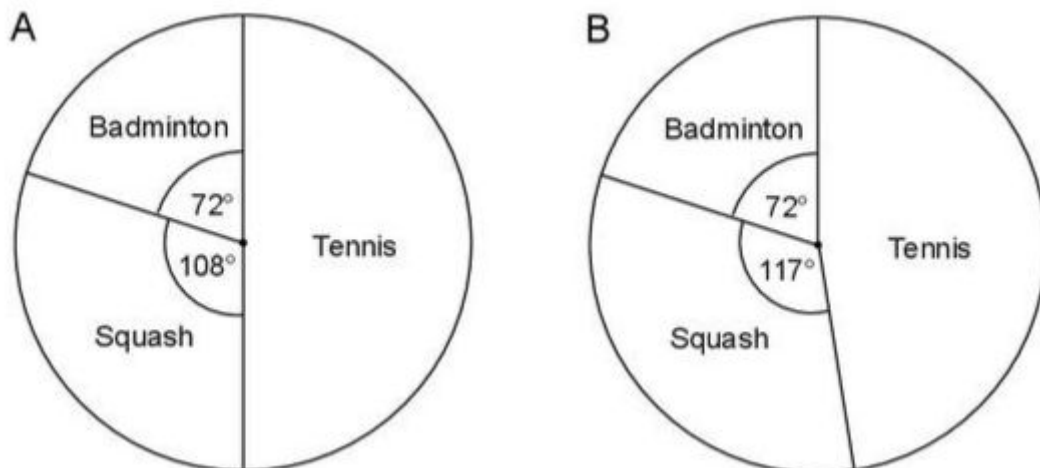
Imagine a pie chart was drawn, with the same proportions as the one below, but for a survey of 540 people.



Would the 'Paintball' category have 90 people in it? Show your working.

## Activity

A group of children had to choose to play one of three sports - tennis, squash or badminton. Pie chart A shows their choices. One of the children changes sport. Pie chart B shows their choices after this change.



Use the pie charts to work out how many children chose to play badminton.

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### Super stretcher!

The dice shown to the right are unusual. A usual six-sided die would have the numbers 1, 2, 3, 4, 5 and 6 on the sides. These dice, however, are unusual because the numbers on the six sides are **1, 2, 3, 5, 7 and 9**.



Two of these unusual dice, one red and one blue, are rolled and the numbers on the upper faces are added together. A winning roll occurs when the sum is either a perfect square or a prime number.

Determine the probability that you win on any particular roll.

**Prime number** - an integer that is greater than 1 and only has two positive divisors, 1 and itself.

**Perfect square** - an integer that is the product of multiplying itself by itself. For example,  $3 \times 3 = 9$ , so 9 is a perfect square.