

# Varied Fluency

## Step 6: Pie Charts with Percentages

### National Curriculum Objectives:

Mathematics Year 6: (6S1) [Interpret and construct pie charts and line graphs and use these to solve problems](#)

### Differentiation:

**Developing** Questions to support using percentages to interpret pie charts using multiples of 10%. Using up to 5 sets of data.

**Expected** Questions to support using percentages to interpret pie charts using multiples of 5%. Using up to 5 sets of data.

**Greater Depth** Questions to support using percentages to interpret pie charts using any percentage. Using up to 5 sets of data and more than 1 pie chart in some questions.

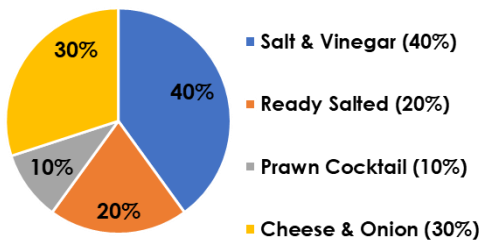
More [Year 6 Statistics](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

## Pie Charts with Percentages

1a. 50 children voted for their favourite crisps. Here are the results:

**Favourite Crisps**



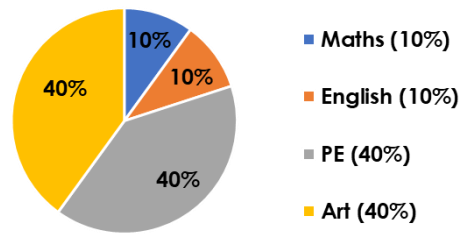
How many voted for salt and vinegar?

VF

## Pie Charts with Percentages

1b. 50 children voted for their favourite lesson. Here are the results:

**Favourite Lesson**

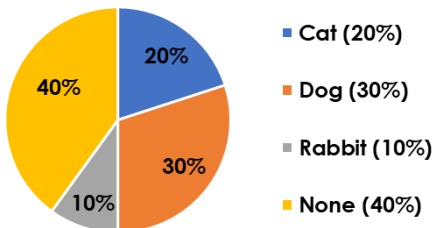


How many voted for maths?

VF

2a. 150 children were asked what pet they have. Here are the results:

**Pets**

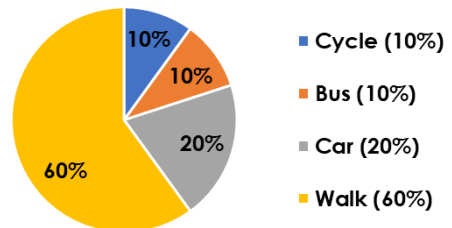


How many more children have no pets than have cats?

VF

2b. 50 children were asked how they get to school. Here are the results:

**Travel to School**

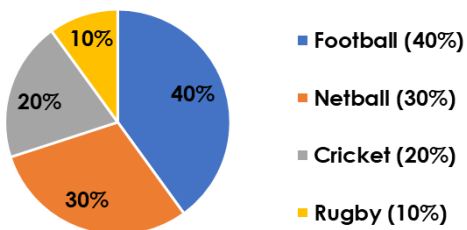


How many more children walk than cycle?

VF

3a. 50 children were asked their favourite sport. Here are the results:

**Favourite Sports**

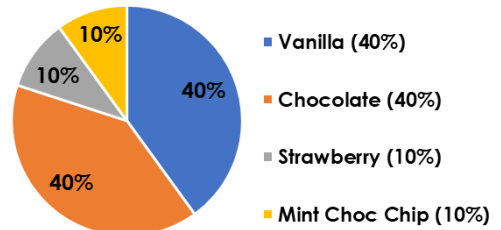


How many chose each sport?

VF

3b. 200 people voted for their favourite ice cream flavour. Here are the results:

**Favourite Ice Cream Flavour**

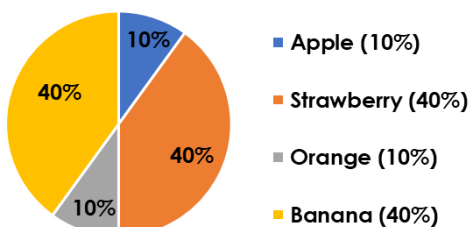


How many voted for each flavour?

VF

4a. If 5 people chose apples, how many chose strawberry?

**Favourite Fruit**

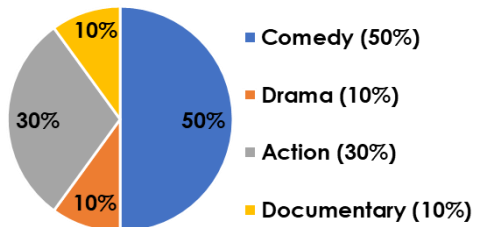


How many chose strawberry?

VF

4b. If 20 people chose documentary, how many chose comedy?

**Favourite Film Genre**



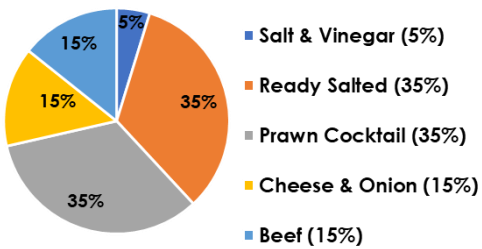
How many chose comedy?

VF

## Pie Charts with Percentages

5a. 60 children voted for their favourite crisps. Here are the results:

**Favourite Crisps**



How many voted for beef?

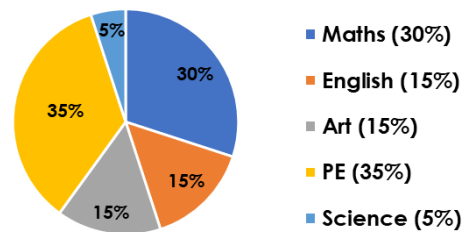


VF

## Pie Charts with Percentages

5b. 120 children voted for their favourite lesson. Here are the results:

**Favourite Lesson**



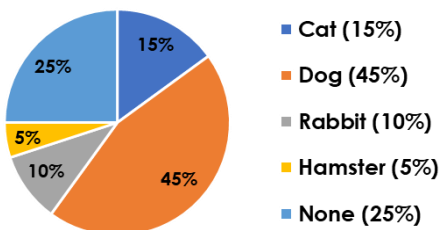
How many voted for PE?



VF

6a. 200 children were asked what pet they have. Here are the results:

**Pets**



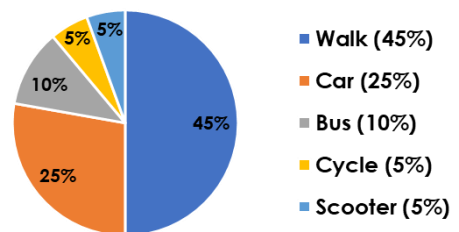
How many more children have dogs than cats?



VF

6b. 180 children were asked how they get to school. Here are the results:

**Travel to School**



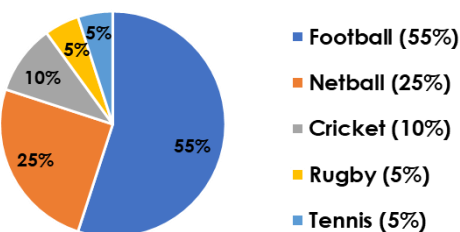
How many more children walk than use a scooter?



VF

7a. 120 children were asked their favourite sport. Here are the results:

**Favourite Sports**



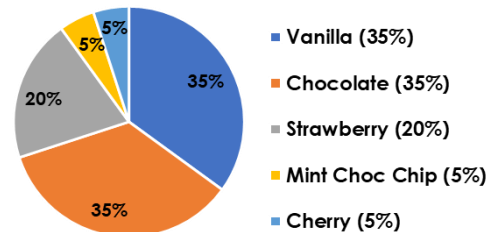
How many chose each sport?



VF

7b. 200 people voted for their favourite ice cream flavour. Here are the results:

**Favourite Ice Cream Flavour**



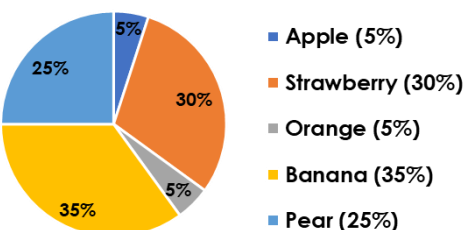
How many voted for each flavour?



VF

8a. If 2 people chose apples, how many chose strawberry?

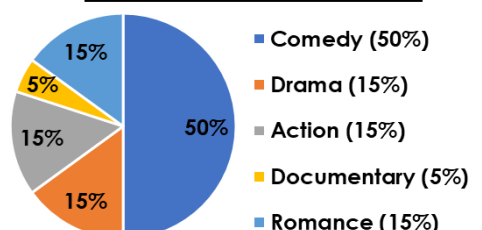
**Favourite Fruit**



VF

8b. If 10 people chose documentary, how many chose comedy?

**Favourite Film Genre**

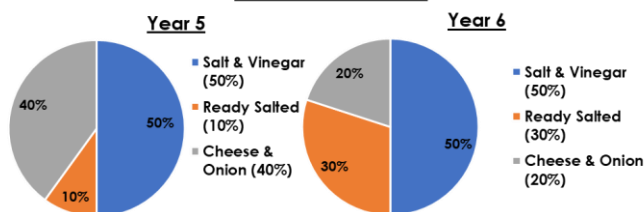


VF

## Pie Charts with Percentages

9a. 50 children in Year 5 and 50 in Year 6 were asked their favourite flavour of crisps.

Favourite Crisps

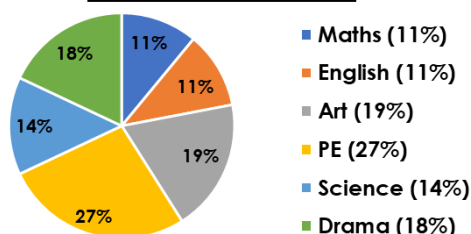


How many chose ready salted?

## Pie Charts with Percentages

9b. 200 children were asked to name their favourite subjects.

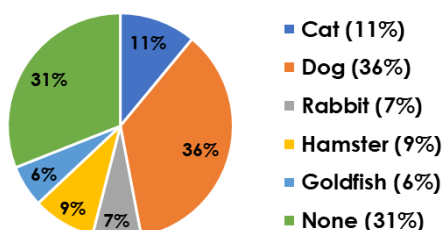
Favourite Lesson



How many chose English or maths?

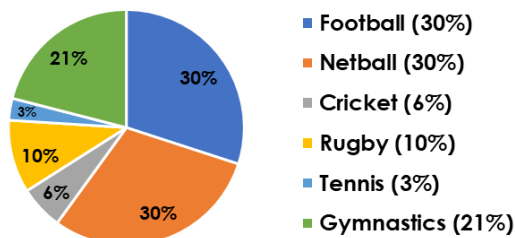
10a. 200 children were asked what pets they have. How many more had no pets than had goldfish, hamsters or rabbits?

Pets



11a. 200 children were asked their favourite sport. Here are the results:

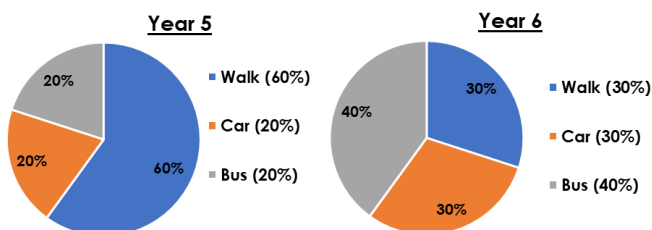
Favourite Sports



How many chose each sport?

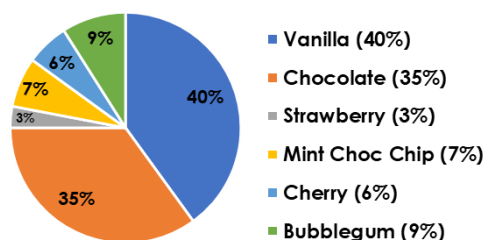
10b. 50 children in Year 5 and 50 in Year 6 were asked how they get to school. How many more children walk than get the bus?

Travel to School



11b. 1,000 people voted for their favourite ice cream flavour. Here are the results:

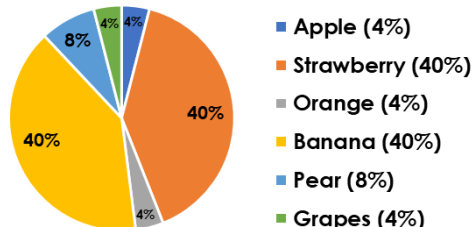
Favourite Ice Cream Flavour



How many voted for each flavour?

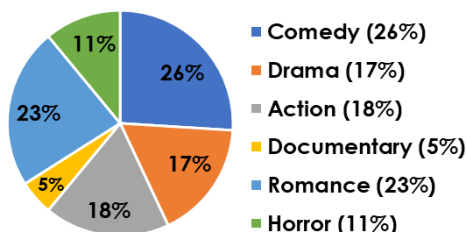
12a. If 2 people chose apple, how many chose banana?

Favourite Fruit



12b. If 10 people chose documentary, how many chose comedy?

Favourite Film Genre



**Varied Fluency**  
**Pie Charts with Percentages**

**Developing**

- 1a. 20  
2a. 30  
3a. Football – 20, Netball – 15, Cricket – 10,  
Rugby – 5  
4a. 20

**Expected**

- 5a. 9  
6a. 60  
7a. Football – 66, Netball – 30, Cricket – 12,  
Rugby – 6, Tennis – 6  
8a. 12

**Greater Depth**

- 9a. 20  
10a. 18  
11a. Football – 60, Netball – 60,  
Cricket – 12, Rugby – 20, Tennis – 6,  
Gymnastics – 42  
12a. 20

**Varied Fluency**  
**Pie Charts with Percentages**

**Developing**

- 1b. 5  
2b. 25  
3b. Vanilla – 80, Chocolate – 80,  
Strawberry – 20, Mint Choc Chip – 20  
4b. 100

**Expected**

- 5b. 42  
6b. 72  
7b. Vanilla – 70, Chocolate – 70,  
Strawberry – 40, Mint Choc Chip – 10,  
Cherry – 10  
8b. 100

**Greater Depth**

- 9b. 44  
10b. 15  
11b. Vanilla – 400, Chocolate – 350,  
Strawberry – 30, Mint Choc Chip – 70,  
Cherry – 60, Bubblegum – 90  
12b. 52