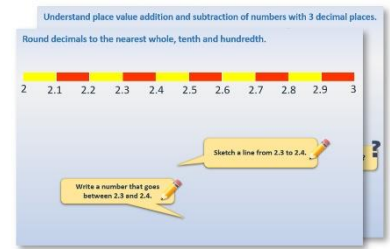


# Week 8, Day 1

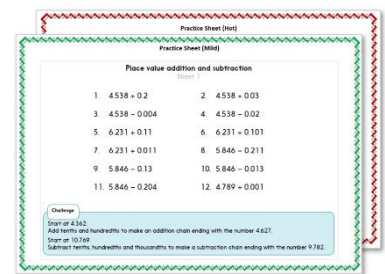
## Pie charts (1)

Each day covers one maths topic. It should take you about 1 hour or just a little more.

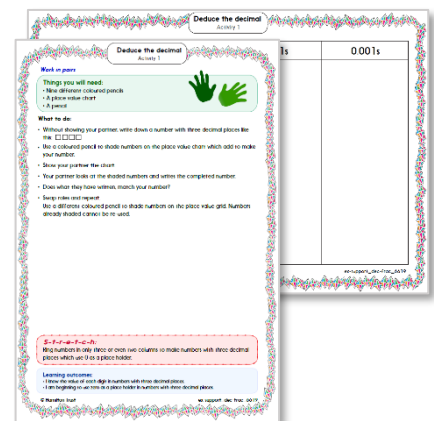
1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



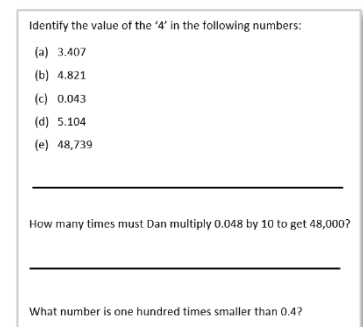
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**

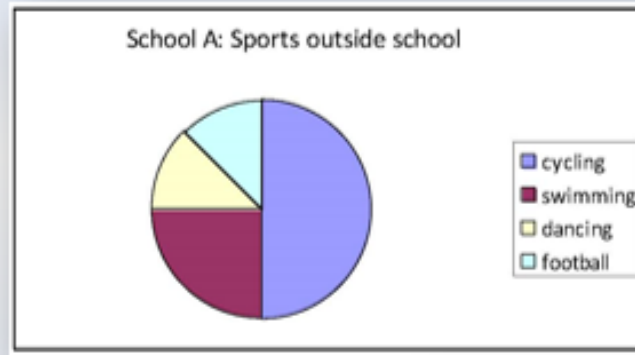


4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!




# Learning Reminders

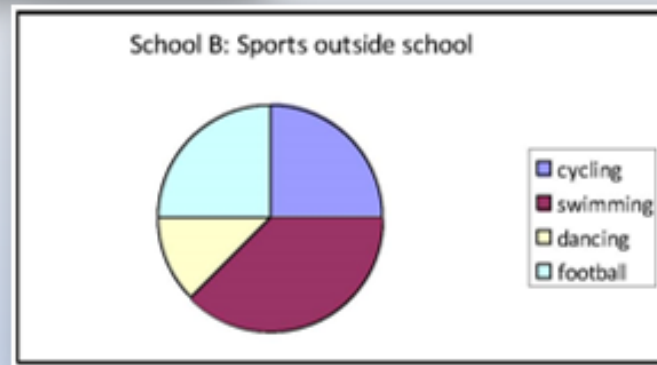
## Interpret pie charts.



These are called pie charts.  
The segments look a little like pieces of pie.  
Children in two schools voted for their favourite sport.



What do you think the pie charts show?

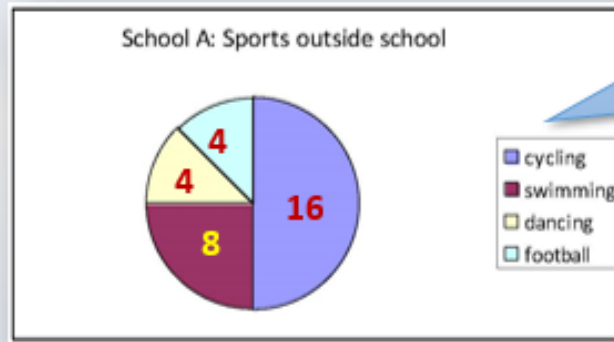


Which is the most popular sport for children from school A?  
And in school B?

**Cycling** in school A.  
**Swimming** in school B.

## Learning Reminders

Interpret pie charts.

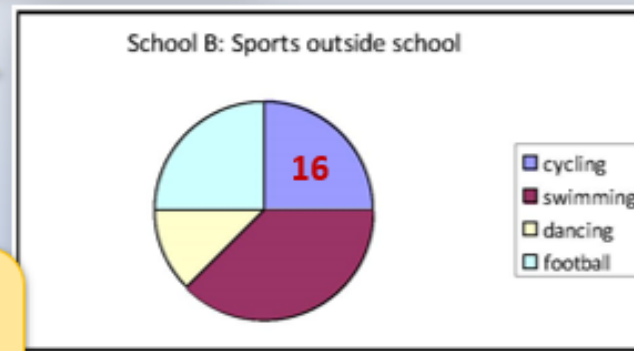


32 children in Year 6 voted in School A. How could you work out how many children voted for each sport?

Half the children voted for cycling, and as half of 32 is 16, then 16 children must have voted for cycling. How many voted for the other sports?

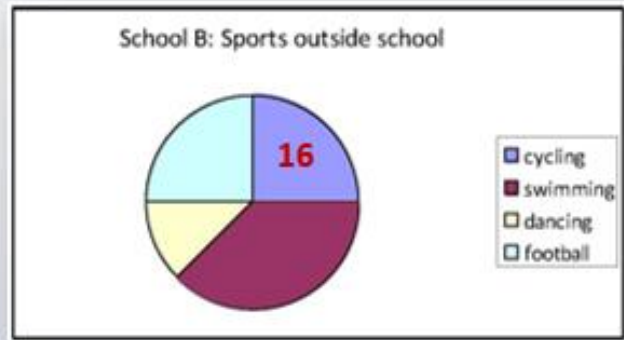
? The second chart shows results from 64 Year 6 children. Did more children vote for cycling in school A or B?

A higher proportion of children in school A voted for cycling but the actual numbers of children were the same:  $\frac{1}{4}$  of 64 is 16.



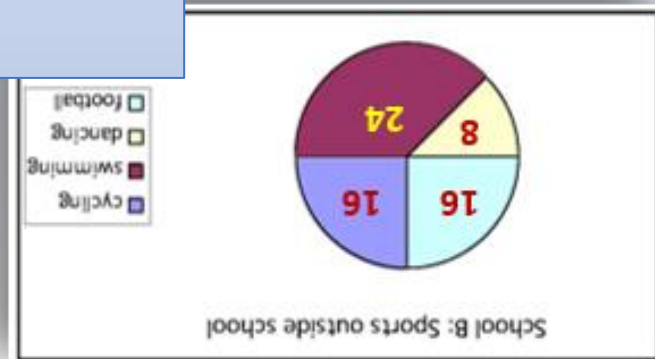
# Learning Reminders

Interpret pie charts.



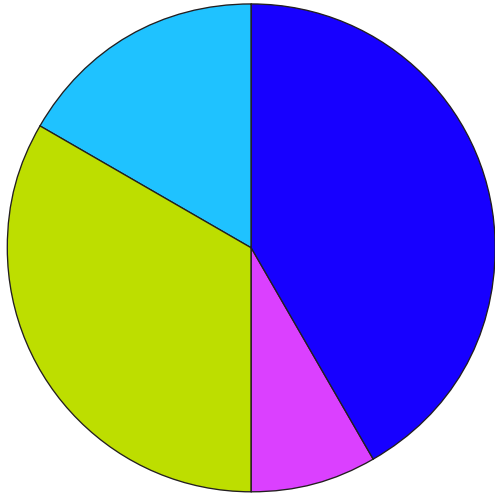
Work out how many of the 64 children voted for each sport in school B.

How do you think this pie chart would differ for your class?  
Sketch what you think it might look like.

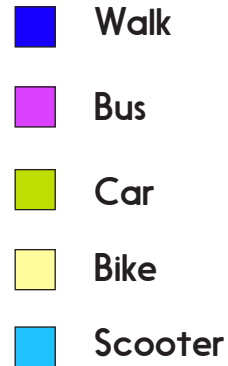
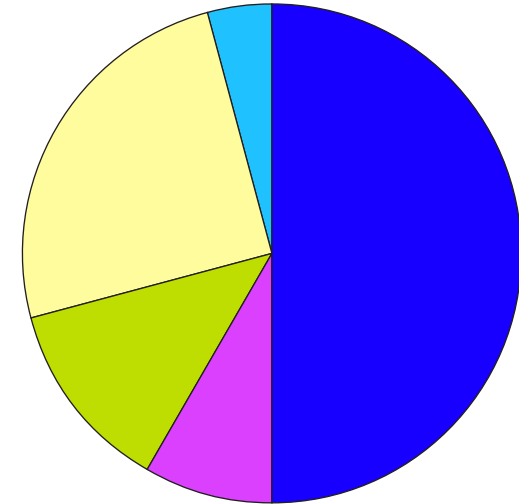


## Practice Sheet for All Interpreting pie charts

How 36 Year 2 children come to school



How 24 Year 6 children come to school



1. Which is the most common way to come to school for each age group?
2. One pie chart has 4 segments; the other has 5. Which segment is missing? Why do you think this might be?
3. Do you think more Year 2 children or more Year 6 children walk to school? Explain your answer.
4. Use the pie charts to estimate how many children use each method to get to school. Draw a table to show your answers.

### Challenge

#### Hot: Have a go at this challenge!

This is how all 240 children come to school: 150 walk, 15 scooter, 30 bike, 30 car, 15 bus. Have a go at sketching a pie chart to represent this data.

# Practice Sheet Answers

## Measures and data

### Interpreting pie charts

1. Walking is the most common way to come to school for each age group.
2. Bike, because nobody from that Year group cycle to school.
3. More Year 2 children walk to school; slightly lower proportion of the pie chart but a larger number of children.
- 4.

	Year 2 children	Year 6 children
Walk	15	12
Bus	3	2
Car	12	3
Bike	0	6
Scooter	6	1

### Challenge

150 walk:  $150 = \frac{5}{8}$  of 240

15 scooter:  $15 = \frac{1}{16}$  of 240

30 car:  $30 = \frac{1}{8}$  of 240

15 bus:  $15 = \frac{1}{16}$  of 240

30 bike:  $30 = \frac{1}{8}$  of 240

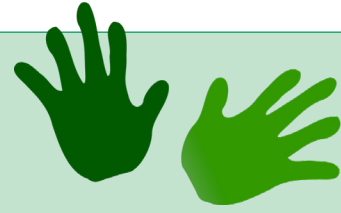


## A Bit Stuck? A piece of Pie not Cake

Work in pairs

### Things you will need:

- 'How two classes of children come to school'
- 'Blank pie chart'



### What to do:

- Look at the two pie charts on the 'How two classes of children come to school' sheet.
- Estimate how many children use each method to get to school.
- Draw a table to show your answers.

	Year 2	Year 6
walk		
bus		
car		

### **S-t-r-e-t-c-h:**

These are the fractions representing how all 160 children come to school:  $\frac{3}{8}$  walk,  $\frac{1}{4}$  scooter,  $\frac{1}{4}$  bike,  $\frac{1}{8}$  car.

1. Have a go at sketching a pie chart on the 'blank pie chart' to represent this data. Think carefully about the proportions (fractions) involved...
2. How many children are represented by each segment?

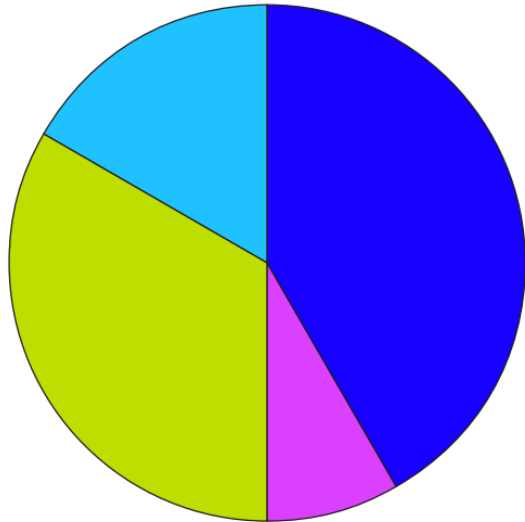
### Learning outcomes:

- I can discuss what pie charts show.
- I can interpret and compare pie charts.
- I can begin to construct pie charts, recognising the fraction of the circle each segment needs to be.

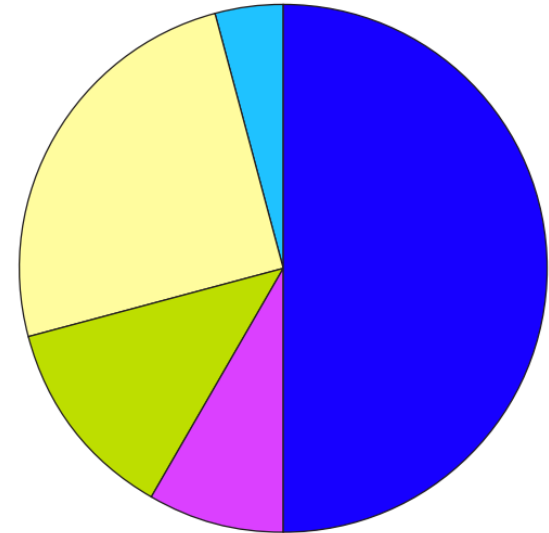
**A Bit Stuck?**  
**A piece of Pie not Cake**

How two classes of children come to school.

How 36 Year 2 children come to school



How 24 Year 6 children come to school

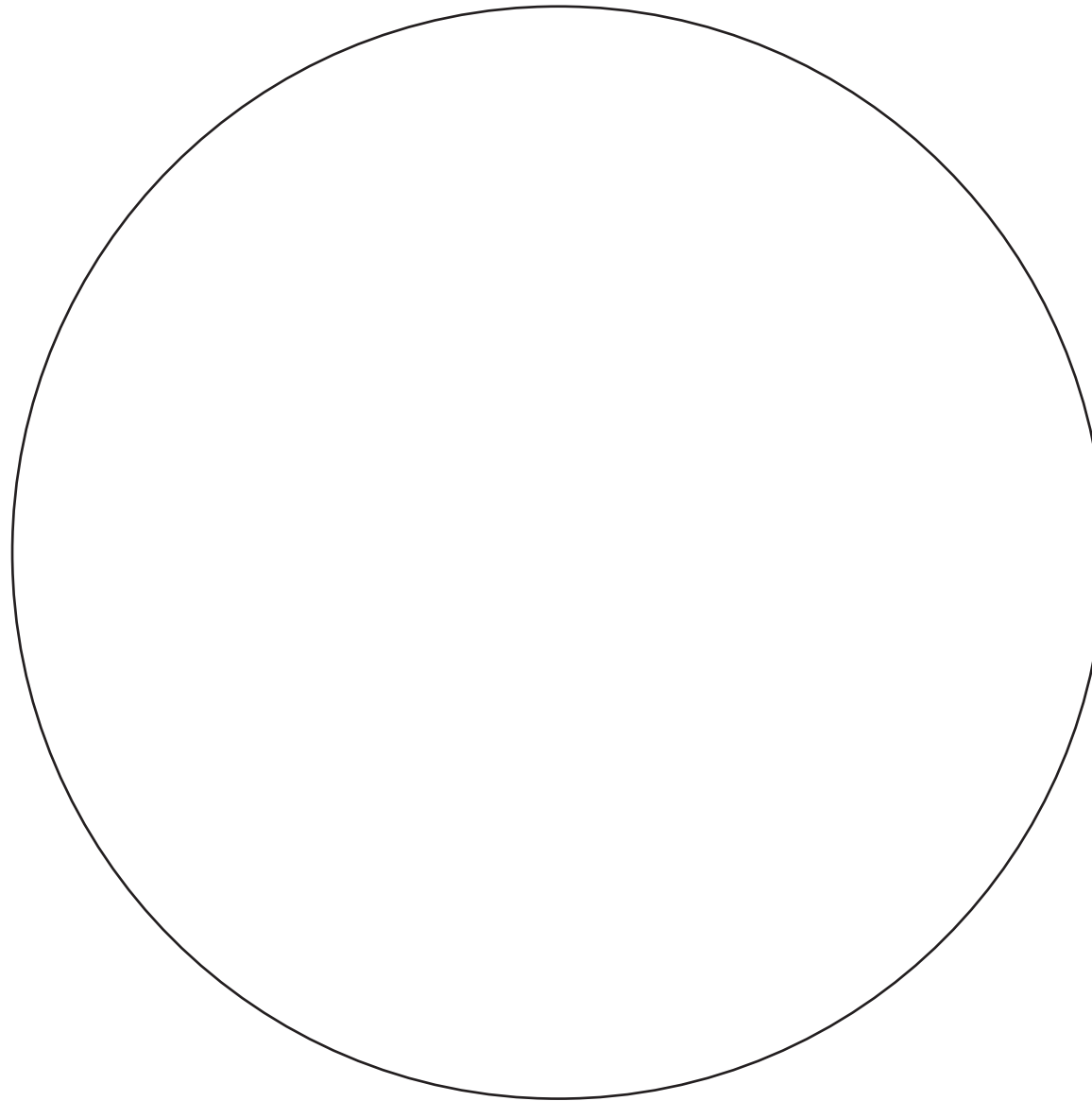


- Walk
- Bus
- Car
- Bike
- Scooter



**A Bit Stuck?**  
**A piece of Pie not Cake**

Blank pie chart.



## Check your understanding

### Questions

Match each data set (i to v) to the best way of displaying it (a to c).

- a. Line graph
- b. Bar chart
- c. Pie chart

Match each data set below to a way of displaying it (above).

- (i) Favourite songs chosen by Y6 from a list of 8 songs
- (ii) Converting pints to litres
- (iii) Hours of homework done each week by children in Y6.
- (iv) Matching pounds £ against dollars \$
- (v) Votes for the nation's favourite animal from a list of 10

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There are two bowls of counters: one with 4 red, 2 blue, 1 green, 1 yellow, and the other with 3 red, 2 blue, 2 green, 1 yellow.

Sketch two pie charts, one for each bowl to show the proportions of different colour counters.

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**Answers on next page**

## Check your understanding

### Answers

Match each data set (i to v) to the best way of displaying it (a to c).

a. Line graph   b. Bar chart   c. Pie chart

(i) Favourite songs chosen by Y6 from a list of 8 songs   **Bar chart.**

(ii) Converting pints to litres   **Line graph.**

(iii) Hours of homework done each week by children in Y6.   **Bar chart or pie chart.**

(iv) Matching pounds £ against dollars \$   **Line graph.**

(v) Votes for the nation's favourite animal from a list of 10   **Pie chart or bar chart.**

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There are two bowls of counters: one with 4 red, 2 blue, 1 green, 1 yellow, and the other with 3 red, 2 blue, 2 green, 1 yellow.

Sketch two pie charts, one for each bowl to show the proportions of different colour counters.

