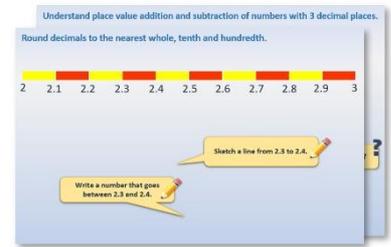


# Week 14, Day 2

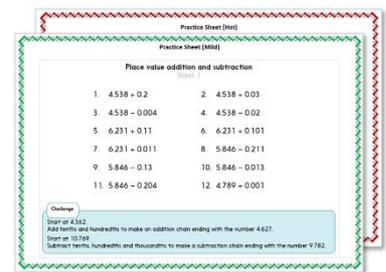
## Pie charts

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

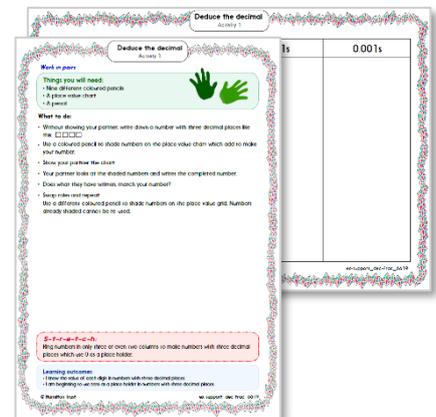
1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



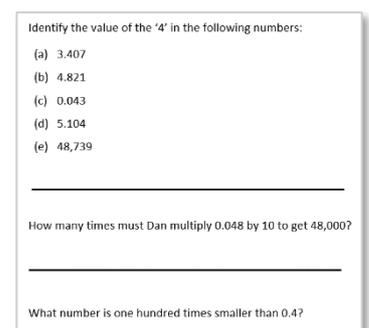
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



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



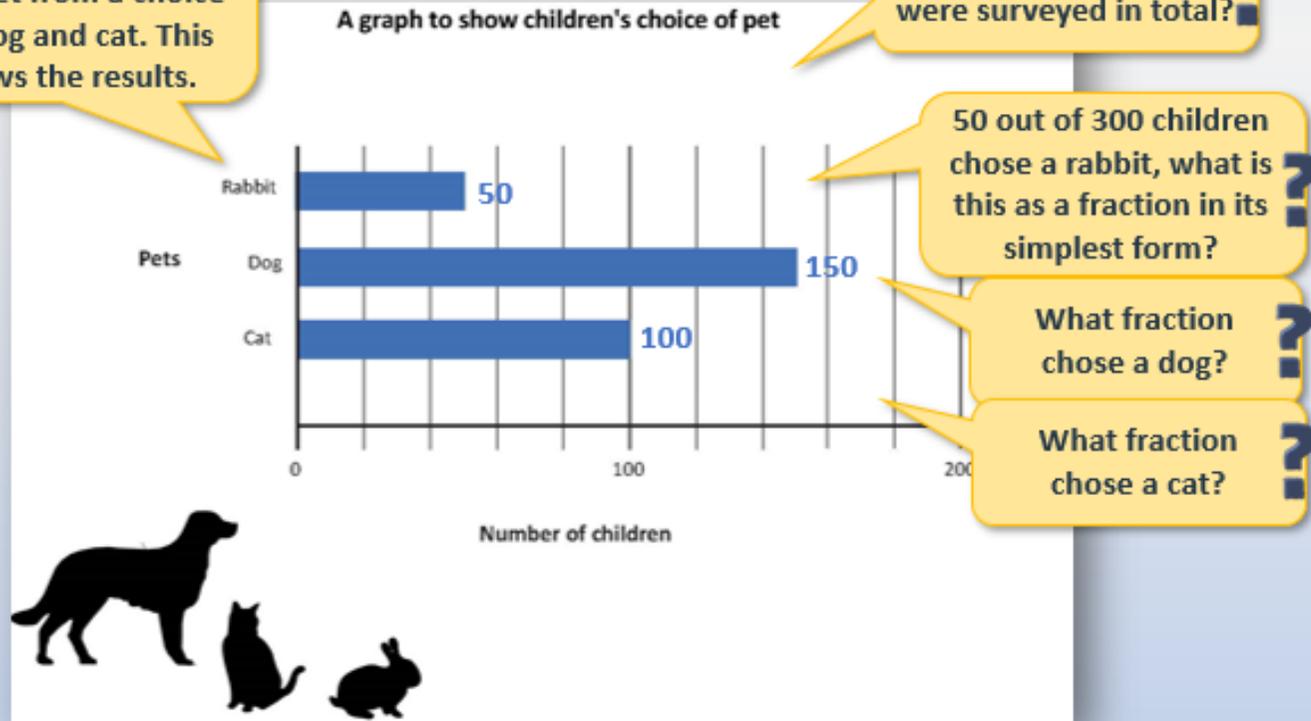
4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



## Learning Reminders

### Sketch and interpret pie charts.

Remember that children in a school were asked to choose their ideal pet from a choice of rabbit, dog and cat. This graph shows the results.



# Learning Reminders

Sketch and interpret pie charts.

300 children were surveyed.

$\frac{1}{6}$  chose a rabbit.

$\frac{1}{2}$  chose a dog.

$\frac{1}{3}$  chose a cat.

We are going to show the same information in a pie chart.

The slices need to be  $\frac{1}{6}$ ,  $\frac{1}{2}$  and  $\frac{1}{3}$  of the circle.

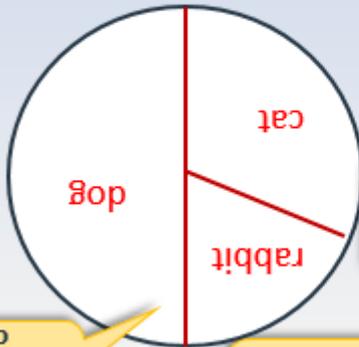
Which might be easiest to draw first?

How many 'slices of pie' do we need to show on our pie chart?

Sketch a pie chart to show the results.

Today's tip is for drawing pie charts: Write each amount as fraction of the total and use this information to help you to draw the pie chart.

**Spoiler alert!**  
**Answers**



Which do you think represents the information more clearly: the bar chart or the pie chart?



Which might be easiest to draw first?

The slices need to be  $\frac{1}{6}$ ,  $\frac{1}{2}$  and  $\frac{1}{3}$  of the circle.

$\frac{1}{6}$  chose a rabbit.  
 $\frac{1}{2}$  chose a dog.  
 $\frac{1}{3}$  chose a cat.

300 children were surveyed.

We are going to show the same information in a pie chart.

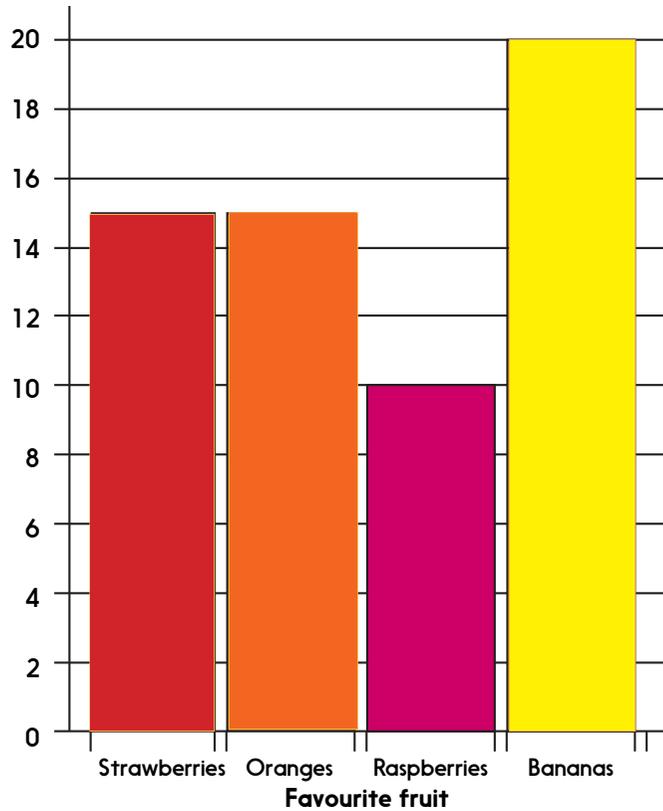
How many 'slices of pie' do we need to show on our pie chart?

Sketch and interpret pie charts.

## Practice Sheet Mild

### Pie charts

1. The children in Year 6 were asked to name their favourite fruit.    2. All 32 children in class 6 chose their favourite jacket potato fillings.



- How many children were in Year 6?
- What fraction of the children chose each fruit?
- How many more children chose bananas than strawberries?
- Sketch a pie chart to show the same information.

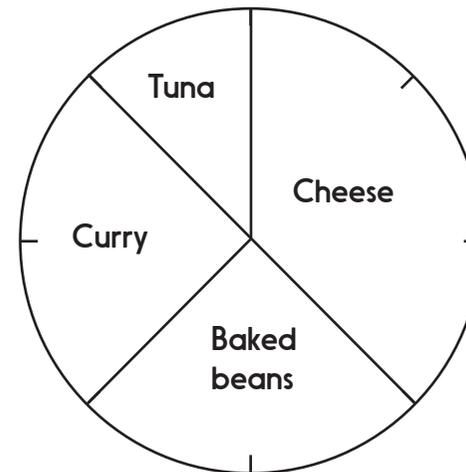
For each statement below put a tick if it is correct and a cross if it is not correct.

16 children like baked beans best.

25% of the children prefer curry.

$\frac{3}{5}$  of the children like tuna.

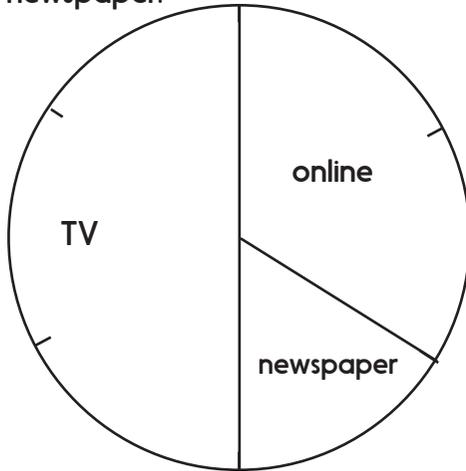
8 children like cheese best.

# Practice Sheet Hot

## Pie charts

1. Some people aged 60 to 70 were asked their favourite way to keep up-to-date with the news. 30 people read a newspaper.



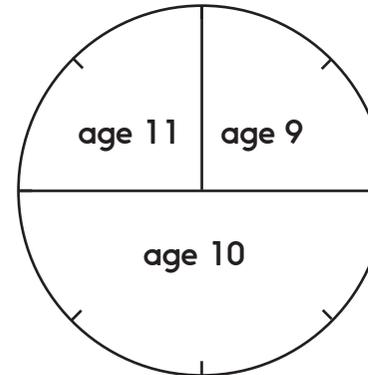
a) How many view news online?

b) How many people gave an answer?

c) How many more people watch news on TV than online?

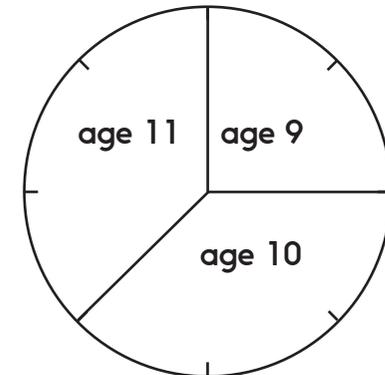
d) How do you think this pie chart might look if people aged 20 to 30 were asked?

2. Y5/6 class in Beech School



32 children

Y5/6 class in Willow School



24 children

a) Tom says there are the same number of children aged 9 in the Y5/6 class at Willow School as at Beech school.

Do you agree?

Yes

No

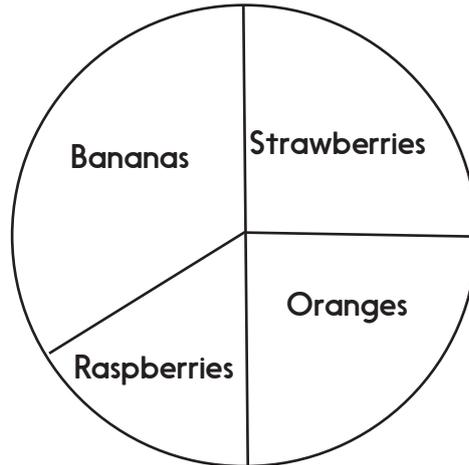
Explain your answer.

b) How many more children are aged 10 in the Y5/6 class at Beech School than in Willow School?

# Practice Sheets Answers

## Pie charts (mild)

1. a) How many children were in Year 6? **60**  
b) What fraction of children chose each fruit?  
**Strawberries  $\frac{15}{60} = \frac{1}{4}$  Oranges  $\frac{15}{60} = \frac{1}{4}$  Raspberries  $\frac{10}{60} = \frac{1}{6}$  Bananas  $\frac{20}{60} = \frac{1}{3}$**   
c) How many more children chose bananas than strawberries? **5**  
d) Sketch a pie chart to show the same information.



2. All 32 children in class 6 chose their favourite jacket potato fillings.

For each statement below put a tick if it is correct and a cross if it is not correct.

16 children like baked beans best.

X

25% of the children prefer curry.

✓

$\frac{3}{5}$  of the children like tuna.

X

8 children like cheese best.

X

## Practice Sheets Answers

### Pie charts (hot)

1. a) 30 people read a newspaper.  
How many view news online? 60
- b) How many people were asked? 180
- c) How many more people watch news on TV than online? 30
- d) How do you think this pie chart might look if people aged 20 to 30 were asked? **More people might be keeping up-to-date online rather than in the newspaper or on TV.**

2. a) Tom says there are the same number of children aged 9 in the Y5/6 class at Willow School as at Beech School.

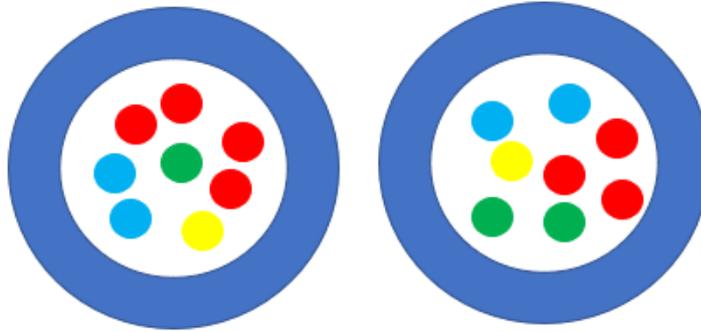
Do you agree? **No**  
Explain your answer.

*There are fewer children aged 9 in Y5/6 children at Willow than at Beech School. There are more pupils at Beech school than Willow school. A quarter of pupils at Beech school is 8 whilst at Willow school it is 6.*

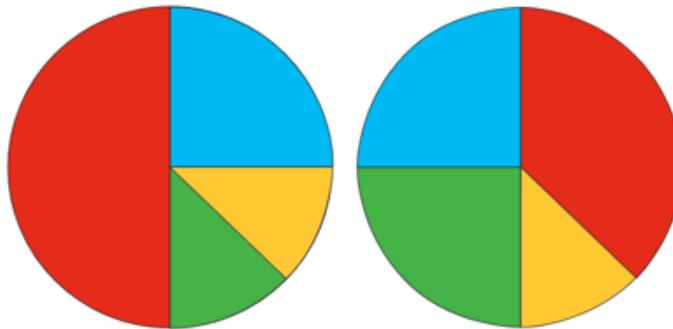
- b) How many more children are aged 10 in the Y5/6 class at Beech School than in Willow School?  
**one half of 32 = 16 (Beech) 3 eighths of 24 = 9 (Willow)**

7

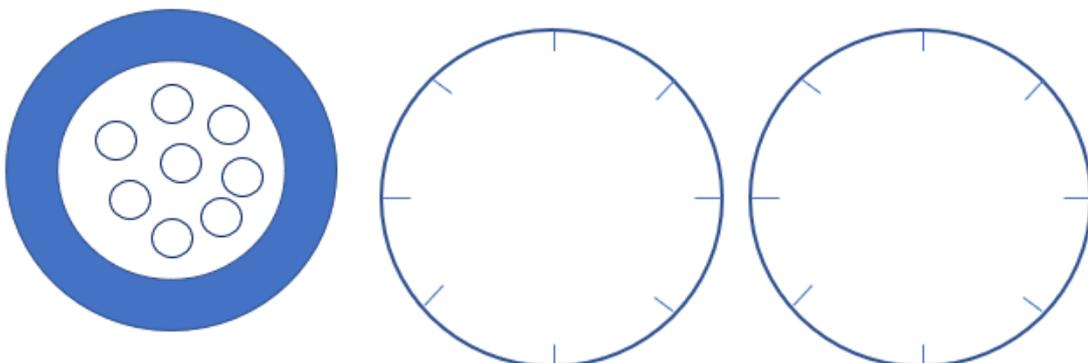
## A Bit Stuck? Bowls of pie



- The pie charts below show the proportions of each colour counter in each bowl.
- Which pie chart goes with which bowl of counters?
- Write a sentence for each pie chart explaining the relationship between the plate and the pie chart.



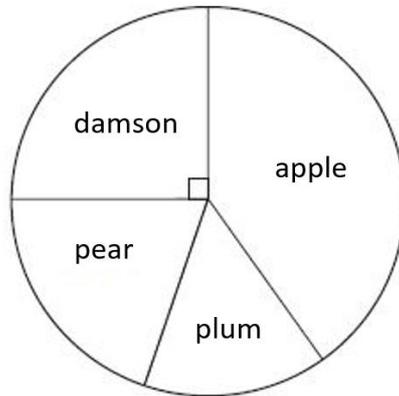
- 1 counter is one-eighth of the pie chart.
- Colour the counters in any colours you like. Use 4-6 colours in all.
- Then draw a pie chart to show the colours of your counters.
- Repeat this with 8 different counters.



## Check your understanding

### Questions

This chart shows the number of different types of tree in an orchard.  
There are 40 trees in the orchard altogether.



Here are some statements about the chart. Tick the statements that are **true**.

There are more damson trees than pear.

The total number of pear and plum trees is 20.

One-quarter of the trees are damson.

There are more than 10 pear trees.

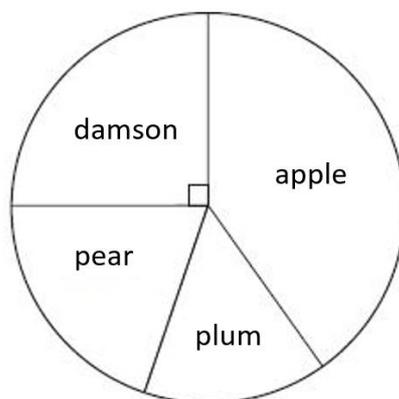
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*Answers on the next page*

## Check your understanding

### Answers

This chart shows the number of different types of tree in an orchard.  
There are 40 trees in the orchard altogether.



Here are some statements about the chart. Tick the statements that are **true**.

There are more damson trees than pear. **True** since the sector of the circle representing damson is larger than for pear.

The total number of pear and plum trees is 20. **False** since they make up less than half the circle.

One-quarter of the trees are damson. **True** since it takes up one quarter of the circle, as shown by the right angle symbol.

There are more than 10 pear trees. **False**, since they take less than one quarter of the circle.