

Homework/Extension

Step 5: Read and Interpret Pie Charts

National Curriculum Objectives:

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

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Decide whether a statement is correct. Using halves, thirds, quarters and fifths with numbers up to 100. Including up to 5 segments and up to 2 different denominators per chart.

Expected Decide whether a statement is correct. Using halves, quarters, eighths, fifths, thirds and sixths, with numbers up to 1000. Including up to 6 segments and up to 3 different denominators per chart, where all denominators are direct multiples.

Greater Depth Decide whether a statement is correct. Using any fraction, with numbers up to 1,000. Including up to 6 segments and up to 4 different denominators per chart, where denominators are not always direct multiples.

Questions 2, 5 and 8 (Varied Fluency)

Developing Compare two sets of data in a pie chart. Using the same criteria as in Q1.

Expected Compare two sets of data in a pie chart. Using the same criteria as in Q4.

Greater Depth Compare two sets of data in a pie chart. Using the same criteria as in Q7.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

Developing Complete the missing labels in the table and pie chart. Using the same criteria as in Q1.

Expected Complete the missing labels in the table and pie chart. Using the same criteria as in Q4.

Greater Depth Complete the missing labels in the table and pie chart. Using the same criteria as in Q7.

More [Year 6 Statistics](#) resources.

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Read and Interpret Pie Charts

1. Some pupils were asked to name their favourite children's author.

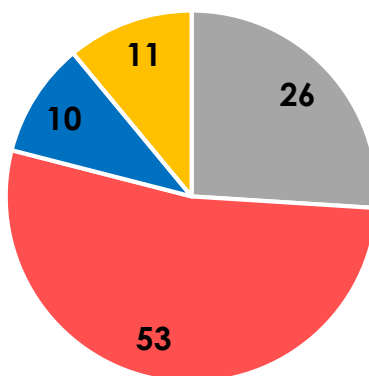
More than one quarter of children surveyed chose Angela Horoblitz as their favourite author.



Maria

Is Maria correct?

Favourite Authors



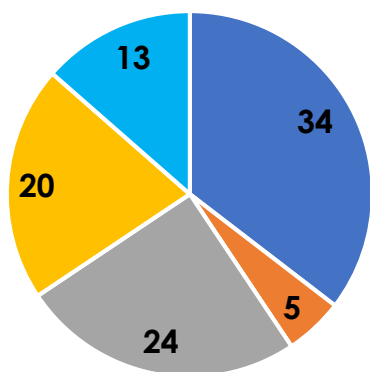
- Angela Horoblitz 26
- Laurence Rowling 53
- Frederick Pullban 10
- Stephen Meber 11



VF
HW/Ext

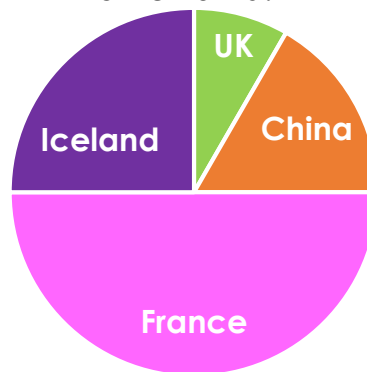
2. The nationalities of employees at 2 companies are shown in the pie charts below. The same number of people were asked at both companies. How many French employees does Supreme Moments Ltd have?

Countries of Birth – Working Evolution Ltd.



- France 34
- Poland 5
- Belgium 24
- UK 20
- Turkey 13

Countries of Birth – Supreme Moments Ltd.



- UK
- China
- France
- Iceland

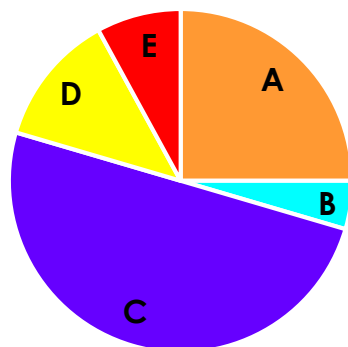


VF
HW/Ext

3. Each person who attended a food festival in York was asked to choose their favourite Greek food. Fill in any missing labels and explain your reasoning.

Favourite Greek Food

- A. Feta Cheese
- B. Octopus
- C. Moussaka
- D. Fresh Fish
- E. Grilled Meat



| Favourite Greek Food | Number of People |
|------------------------|------------------|
| Feta Cheese | |
| Octopus | 4 |
| Moussaka | 44 |
| Fresh Fish | 11 |
| Grilled Meat | 7 |
| Total Number of People | |



RPS
HW/Ext

Read and Interpret Pie Charts

4. Some pupils were asked to name their favourite children's author.

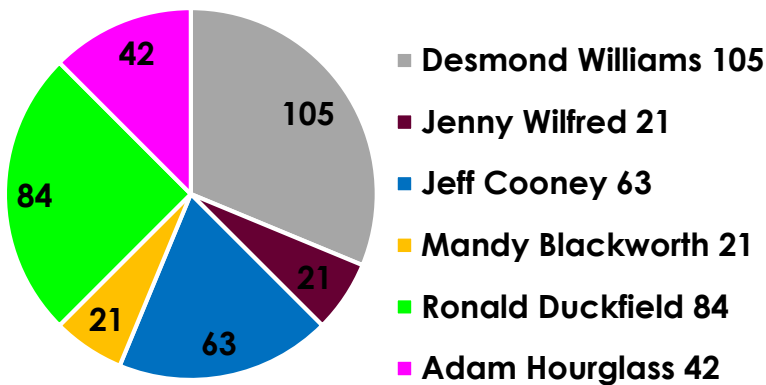
Less than a quarter of the children surveyed chose female authors as their favourite.



Astrid

Is Astrid correct?

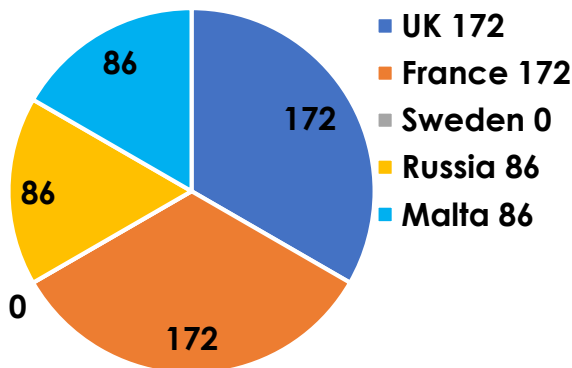
Favourite Authors



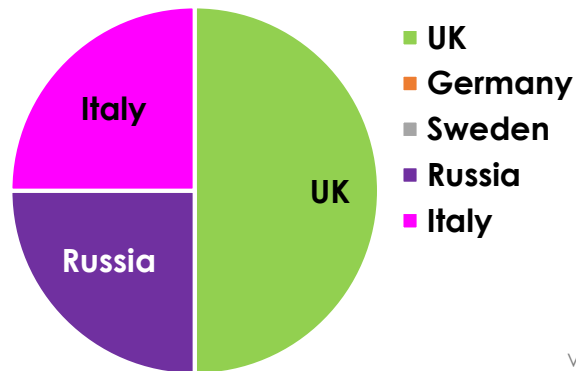
VF
HW/Ext

5. The nationalities of employees at 2 companies are shown in the pie charts below. The same number of people were asked at both companies. How many more Russians does Driven by Dreams Ltd employ?

Countries of Birth – Happiness Lasts Forever Ltd.



Countries of Birth – Driven by Dreams Ltd.

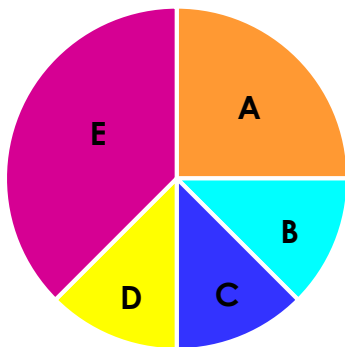


VF
HW/Ext

6. Each person who attended a food festival in London was asked to choose their preferred Mediterranean food. Fill in any missing labels and explain your reasoning.

Favourite Mediterranean Food

- A. Grilled Swordfish
- B. _____
- C. Moroccan Meatballs
- D. Chicken Wraps
- E. Lamb Kebabs



| Favourite Mediterranean Food | Number of People |
|------------------------------|------------------|
| Grilled Swordfish | |
| Spanish Omelette | 98 |
| Moroccan Meatballs | 98 |
| Chicken Wraps | 98 |
| Lamb Kebabs | |
| | 784 |



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Read and Interpret Pie Charts

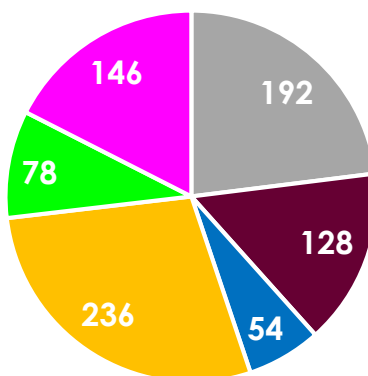
7. Some pupils were asked to name their favourite children's author.

$\frac{2}{6}$ of the children surveyed chose an author with only five letters in their first name.



Felix

Favourite Authors



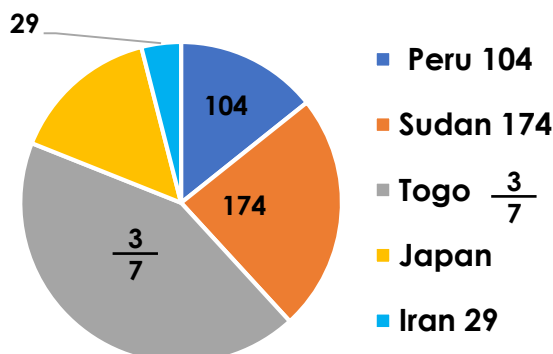
- Freddie Simond 192
- Michelle Mortugo 128
- Ethel Blymore 54
- Judy Donalson 236
- Louis Carrot 78
- Larry Chimney 146

Is Felix correct?

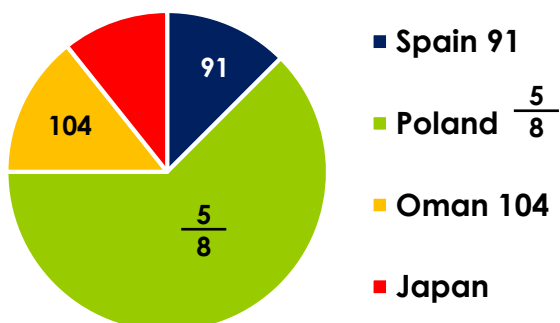
VF
HW/Ext

8. The nationalities of employees at 2 companies are shown in the pie charts below. 728 people were asked at both companies. Which company employs the most Japanese?

Banish Those Blues Ltd.



Happy Workforce Ltd.

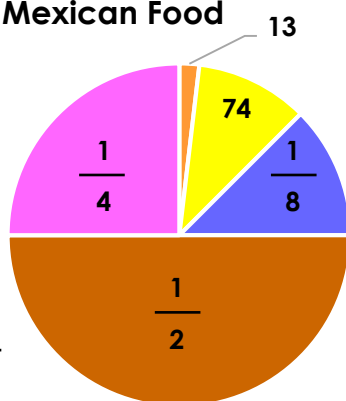


VF
HW/Ext

9. Each person who attended a food festival in Newcastle was asked to choose their preferred Mexican food. Fill in any missing labels and explain your reasoning.

Favourite Mexican Food

- Pork Burritos 13
- Prawn Soup 74
- Tortillas $\frac{1}{8}$
- Enchiladas $\frac{1}{2}$
- Chorizo Tacos $\frac{1}{4}$



| Favourite Mexican food | Number of People |
|---------------------------|------------------|
| Pork Burritos | 13 |
| Prawn Soup | 74 |
| Tortillas | |
| Potato Enchiladas | |
| Chorizo Tacos | |
| Total Number of Attendees | |

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Homework/Extension

Read and Interpret Pie Charts

Developing

1. Maria is correct. $\frac{26}{100}$ children chose Angela Horoblitz as their favourite author. $\frac{1}{4}$ of the children surveyed is 25. 26 is greater than 25.
2. Supreme Moments Ltd. has 48 French employees.
3. Feta cheese – 22; total number of attendees = 88.

Expected

4. Astrid is correct. Mandy and Jenny are the only female authors. $21 + 21 = 42$. $336 \div 4 = 84$ so this is $\frac{1}{4}$. 42 is less than 84.
5. 43 more Russians. Driven by Dreams Ltd. employs 129 Russians whereas Happiness Lasts Forever Ltd employs 86 so $129 - 86 = 43$.
6. Grilled swordfish - 196; Lamb kebabs – 294. The missing label at the bottom left of the table should say 'Total number of people'. The missing label on the pie chart key is 'Spanish omelette'.

Greater Depth

7. Felix is correct. Ethel, Louis and Larry are the only authors listed that have five letters in their first names. $54 + 78 + 146 = 278$. $\frac{2}{3}$ of 834 = 278
8. Banish Those Blues Ltd. has 109 Japanese employees and Happy Workforce Ltd. has 78. Banish those Blues has the largest number.
9. Tortillas - 87; Potato enchiladas – 348; Chorizo Tacos – 174 and the total number of attendees was 696.