

# Homework/Extension

## Step 1: Interpret Charts

### National Curriculum Objectives:

Mathematics Year 4: (4S1) [Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs](#)

Mathematics Year 4: (4S2) [Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs](#)

### Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

**Developing** Identify if a pictogram has been correctly converted into a bar chart, using 1:1 correspondence.

**Expected** Identify if a pictogram has been correctly converted into a bar chart, using 10:1 correspondence.

**Greater Depth** Identify if a pictogram has been correctly converted into a bar chart, using 3:1 correspondence.

Questions 2, 5 and 8 (Varied Fluency)

**Developing** Identify a misinterpretation based on a bar chart, using 1:1 correspondence. Single step question.

**Expected** Identify a misinterpretation based on a bar chart, using 2:1 correspondence. Two step question.

**Greater Depth** Identify a misinterpretation based on a bar chart, using 4:1 correspondence. Multi step question.

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

**Developing** Explain whether the presentation of information is most appropriate or not. Single step question.

**Expected** Explain whether the presentation of information is most appropriate or not and how they would do it. Two step question.

**Greater Depth** Explain whether the presentation of information is most appropriate or not and how they would do it. Multi step question.

More [Year 4 Statistics](#) resources.

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# Interpret Charts

1. True or false? This pictogram has been correctly converted into a bar chart.

Class 4's Favourite Type of Story	
Mystery	● ● ● ●
Adventure	● ● ● ● ● ●
Legend	● ● ● ●
Ghost	●

Key: ○ = 1 child



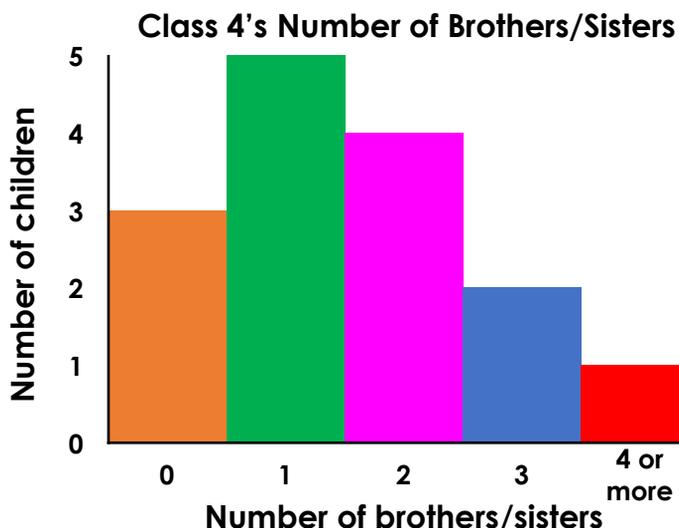
VF  
HW/Ext

2. Julia says,

5 more children have one brother/sister, than have 4 or more brothers/sisters.



Is she correct?



VF  
HW/Ext

3. Patrick has used the information in the table below to make a pictogram.

Do you think a pictogram is the best way to present this information? Explain your answer.

Favourite Wild Animal	
Lion	
Tiger	
Giraffe	
Elephant	

Favourite Wild Animal	
Lion	● ● ●
Tiger	● ●
Giraffe	●
Elephant	● ● ● ●

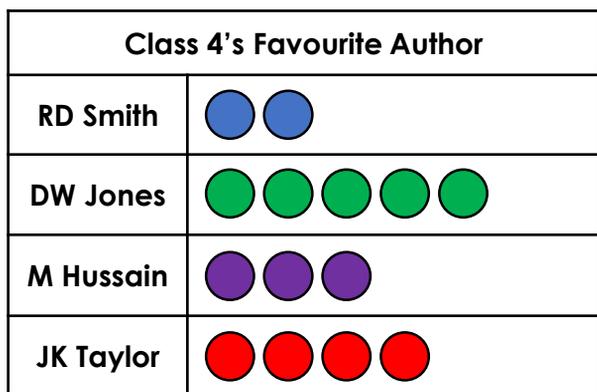
Key: ○ = 1 animal



RPS  
HW/Ext

# Interpret Charts

4. True or false? This pictogram has been correctly converted into a bar chart.



Key: ○ = 2 children



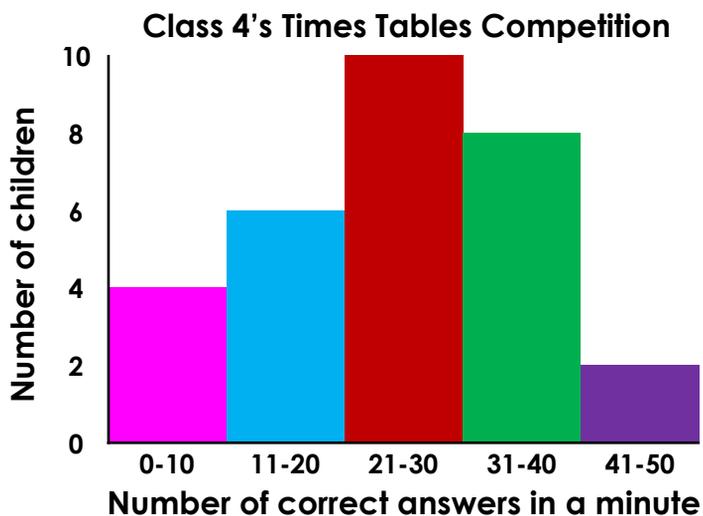
VF  
HW/Ext

5. Ben says,

18 children got more than 21 answers correct in a minute.



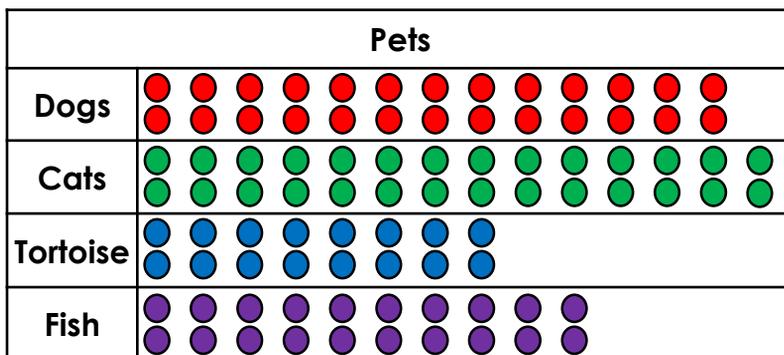
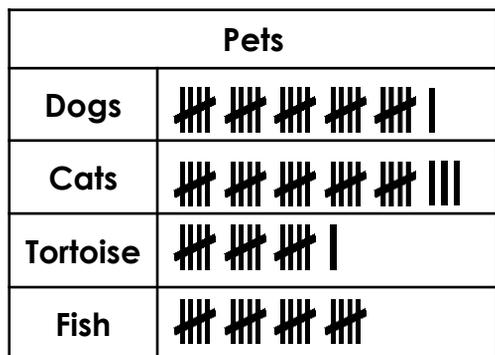
Is he correct?



VF  
HW/Ext

6. Lena has used the information in the table below to make a pictogram.

Do you think a pictogram is the best way to present this information? Explain your answer.



Key: ○ = 1 pet



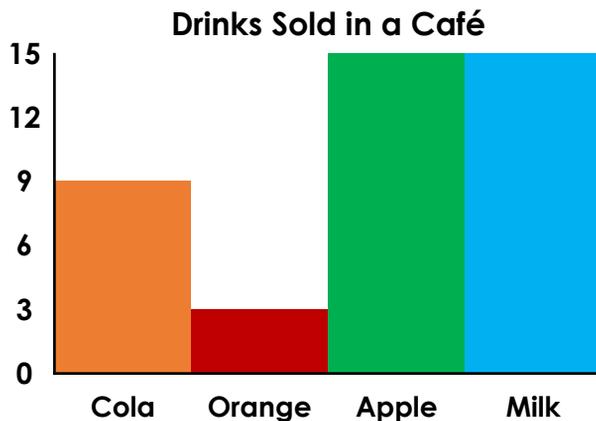
RPS  
HW/Ext

# Interpret Charts

7. True or false? This pictogram has been correctly converted into a bar chart.

Drinks Sold in a Café	
Orange	● ● ●
Cola	●
Apple	● ● ● ● ●
Milk	● ● ● ● ● ● ●

Key: ○ = 3 drinks



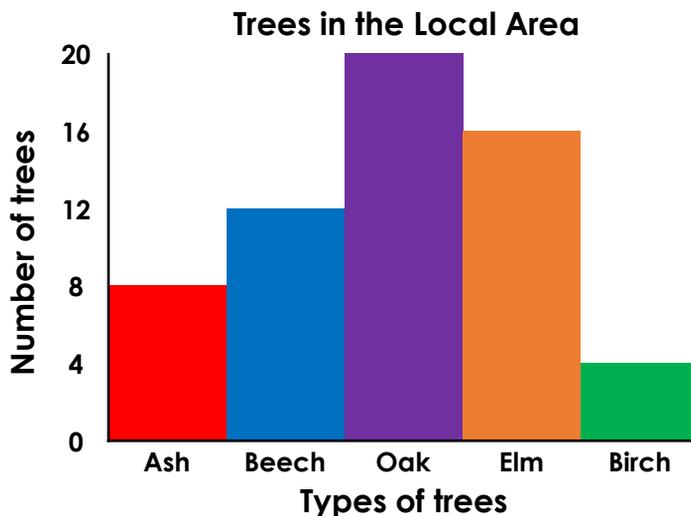
VF  
HW/Ext

8. Ruby says,

There are  $\frac{2}{3}$  as many ash trees as there are oak and birch.



Is she correct?



VF  
HW/Ext

9. Jude has used the information in the table below to make a pictogram.

- A. Do you think a pictogram is the best way to present this information? Explain your answer.
- B. Draw your own chart to present the information in the table.

Size of Audience at Cinema	
1pm	
3pm	
5pm	
7pm	

Size of Audience at Cinema	
1pm	● ● ●
3pm	● ● ● ●
5pm	● ● ● ●
7pm	● ● ● ●

Key: ○ = 10 people



RPS  
HW/Ext

## Homework/Extension

### Interpret Charts

#### Developing

1. False, the scale should start at 0 and the labels for Legend/Adventure have been mixed up.
2. No, 4 more children have 1 sibling than have 4 or more siblings.
3. Various possible answers, for example; Yes because the values are small so they are easy to count using a pictogram.  
No, a bar chart would be easier to display the small values.

#### Expected

4. False, the scale should go up in 2s, not in 10s and the labels for M Hussain and JK Taylor have been mixed up.
5. No, 20 children got 21 or more answers correct in a minute.
6. Various possible answers, for example; No, a bar chart that uses a scale of 1 picture = 2 pets would be a better way of presenting the information.

#### Greater Depth

7. False, the scale should go up to 21 and the orange/cola labels have been mixed up.
8. No, there are one third as many ash trees as oak and birch.
9. A. Various possible answers, for example; No, it is not easy to show numbers that are not multiples of the scale when using a pictogram.  
B. An accurate bar chart with a scale of 5:1.