Name ANSWERS	Class

MATHS TEACHER HUB

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Pictograms

(9 – 1) Topic booklet

Foundation

These questions have been collated from previous years GCSE Mathematics papers.

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.	Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must **show all your working out.**
- If the question is a **1F** question you are not allowed to use a calculator.
- If the question is a **2F** or a **3F** question, you may use a calculator to help you answer.

Information

- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Answer ALL questions
Write your answers in the space provided.
You must write down all the stages in your working.

5 David sells CDs in a shop.

The tally chart shows information about the number of CDs David sold on Monday, on Tuesday and on Wednesday.

	Tally	Frequency
Monday	𝍸 𝍸 |||	12
Tuesday	𝍸 𝍸 𝍸 |||	18
Wednesday	𝍸 |||	8

(a) Write down **one** thing that is wrong with the tally chart.

Monday has 13 in the tally and 12 in the frequency.

(1)

David drew this pictogram to show the information for Tuesday and Wednesday.

Tuesday	◐ ◐ ◐ ◐ ◐
Wednesday	◐ ◐ ◖

Key: ◐ represents 3 CDs

(b) Write down **one** thing that is wrong with this pictogram.

◖ ½ a CD represents 1.5 CD's, which isn't possible.

(1)

(Total for Question 5 is 2 marks)

6 The pictogram shows information about the number of chocolate cakes, vanilla cakes and lemon cakes sold by Year 7 at a school fair.

Chocolate	⊕ ⊕ ⊕ ⊕ ⊕ 60
Vanilla	⊕ ⊕ ⊕ ◔ 39
Lemon	⊕ ◑ 18
Banana	⊕ ⊕ 24

Key: ⊕ represents 12 cakes

141 = Total year 7

24 banana cakes were sold by Year 7

(a) Use this information to complete the pictogram.

(1)

At the fair, Year 8 sold a total of 150 cakes.

(b) Which Year sold most cakes at the fair, Year 7 or Year 8?
You must show how you get your answer.

Year 8 sold more cakes

150 > 141

(3)

(Total for Question 6 is 4 marks)

6 Ben sells houses.

The pictogram shows information about the number of houses Ben sold in each of the first three months of last year.

January	10
February	9
March	12
April	11
May	

Key: represents 4 houses

60

(a) Write down the number of houses Ben sold in January.

10

(1)

In April, Ben sold 11 houses.

(b) Show this information on the pictogram.

(1)

Ben sold a total of 60 houses in the first five months of last year.

(c) Work out the number of houses Ben sold in May.

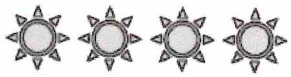
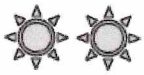
18 in may.

18

(3)

(Total for Question 6 is 5 marks)

6 The pictogram gives information about the number of hours of sunshine on a Saturday and on a Sunday.

Saturday	
Sunday	

Key:  represents 2 hours of sunshine

Work out the number of hours of sunshine on Saturday.

8 hours

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(Total for Question 6 is 1 mark)

6 The pictogram shows information about the number of pictures sold in an art shop in each of January, February and March.

January	□ □ □	24
February	□ □ □ [	28
March	□ □ [	20
April	□ [	12

Key:

□ represents 8 pictures

(a) Write down the number of pictures sold in January.

24

(1)

12 pictures were sold in April.

(b) Show this information on the pictogram.

(1)

(c) What was the total number of pictures sold in these four months?

Total = 24 + 28 + 20 + 12

84

(2)

(Total for Question 6 is 4 marks)

6 The incomplete pictogram shows information about the number of cycles sold in a shop on Tuesday, on Wednesday and on Thursday.

Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

Key:

= 4

A total of 20 cycles were sold on Tuesday, Wednesday and Thursday.

$20 \div 5 = 4$

8 cycles were sold on Friday.
15 cycles were sold on Saturday.

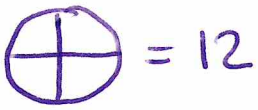
Use this information to complete the pictogram.

(Total for Question 6 is 3 marks)

7 The incomplete pictogram shows information about the number of eggs sold from a farm shop on Monday.

Monday	 18
Tuesday	
Wednesday	

Key:



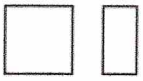
On Monday the shop sold 18 eggs.
On Tuesday the shop sold 24 eggs.
On Wednesday the shop sold 27 eggs.

Use this information to complete the pictogram and the key.

(Total for Question 7 is 4 marks)

7 There are only apple trees, cherry trees, pear trees and plum trees in an orchard.

The pictogram shows information about the numbers of apple trees, cherry trees and pear trees in the orchard.

Apple		12
Cherry		5
Pear		6
Plum		7
		30

Key:

 represents 4 trees

There is a total of 30 trees in the orchard.

Complete the pictogram.

30 - 23 = 7 plum

(Total for Question 7 is 3 marks)

9 The pictogram shows information about the number of vinyl records sold in a shop on Monday and on Tuesday.

Monday	○ ○ ○
Tuesday	○ ○ ◁
Wednesday	◁ 4
Thursday	○ ○ ○ ○ 32

Key:

○ represents 8 vinyl records

(a) Write down the number of vinyl records sold

(i) on Monday,

24

(1)

(ii) on Tuesday.

18

(1)

On Wednesday and Thursday a total of 36 vinyl records were sold.
The number of records sold on Thursday was 8 times the number of records sold on Wednesday.

(b) Use this information to complete the pictogram.

Wed x Thur $8x$

$8x = 36$

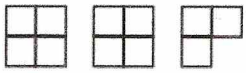
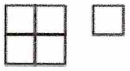
$9x = 36$

$x = 4$

(3)

(Total for Question 9 is 5 marks)

11 The pictogram shows information about the number of video games sold in a shop on Monday, on Tuesday and on Wednesday.

Monday	 16
Tuesday	 22
Wednesday	 10
Thursday	
Friday	

Key:
 represents 8 video games

(a) How many video games were sold on Monday?

16

(1)

More video games were sold on Tuesday than on Wednesday.

(b) How many more?

22 − 10 = 12

12

(2)

On Thursday and Friday, a total of 32 video games were sold in the shop.

$\frac{1}{4}$ of these 32 video games were sold in the shop on Thursday.

(c) Complete the pictogram for Thursday and Friday.

$\frac{1}{4}$ of 32 = 8

$\frac{3}{4}$ of 32 = 24

(3)

(Total for Question 11 is 6 marks)

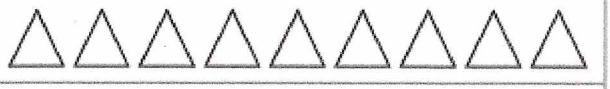
14 The table shows information about the numbers of fruit trees in an orchard.

$\frac{45}{9} = 5$

Apple tree	Pear tree	Plum tree
45	20	25

(a) The pictogram shows this information.

Complete the key for the pictogram.

Apple tree	
Pear tree	
Plum tree	

Key:  represents 5 trees

(1)

(Total for Question 14 is 1 mark)