Name	Date

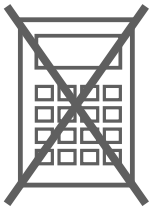
GCSE Mathematics 9-1

Pictograms

(Non-Calculator)

Exam-Style Topic Paper	Total Marks
Time: 50 minutes	**/ 46**

Instructions



- Use black ink or ball-point pen.
- Fill in the boxes at the top of this page with your name and date number.
- Answer all questions.
- Answer the questions in the spaces provided – there may be more space than you need.
- You must show all your working.
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- Calculators may **not** be used.

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.
- Try to answer every question.
- Check your answers if you have time at the end.

1 The pictogram shows the favourite fruit of some pupils.

Apple	
Banana	
Orange	
Grapes	
Pear	

Key

 represents 4 pupils

(a) How many pupils chose apple?

.....

[1 mark]

(b) How many pupils chose orange?

.....

[1 mark]

(c) Which fruit was the most popular?

.....

[1 mark]

(d) How many more pupils chose grapes than chose banana?

.....

[1 mark]

(e) How many pupils were asked altogether?

.....

[2 marks]

2 The pictogram shows the number of visitors to a museum.

Thursday	▭ ▭
Friday	▭ ▭ ▭
Saturday	▭ ▭ ▭ ▭ ▭ ▯

Key
▭ represents 20 visitors

Ellie says, "There were twice as many visitors on Saturday as on Friday."
Is Ellie correct?
You must show your working.

.....

.....

[2 marks]

3 The table and the pictogram show the number of books lent by a library.

Day	**Mon**	**Tue**	**Wed**	**Thu**
Books	8	12	6	10

Monday	● ●
Tuesday	● ● ●
Wednesday	● ◗
Thursday	● ● ●

Key
● represents 4 books

One day is shown wrongly on the pictogram.
Which day?

.....

[1 mark]

4 The pictogram shows the favourite sport of some pupils. The key is missing.

Football	● ● ● ●
Tennis	● ● ◗
Swimming	● ● ● ◗
Netball	● ●

120 pupils were asked altogether.
Work out how many pupils chose swimming.

.....

[3 marks]

5 Sam draws 4 symbols to show 20 people.
How many people does one symbol represent?

..... people

[1 mark]

6 The pictogram shows how many pupils go to three after-school clubs.

Art	■ ■ ■
Chess	■ ■ ▮
Drama	■ ■ ■ ■

Key
■ represents 6 pupils

How many pupils go to the three clubs altogether?

.....

[2 marks]

7 In a pictogram, a circle represents 5 people.
How many circles are needed to show 35 people?

..... circles

[1 mark]

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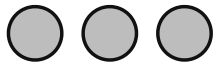
8 The table shows the number of cars sold at a garage each day.

Day	Mon	Tue	Wed	Thu	Fri
Cars sold	6	9	4	7	10

Complete the pictogram to show this information.

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

Key
 represents 2 cars

[3 marks]

---

9 A square represents 10 people.
How many people are shown by 3½ squares?

..... people

[1 mark]

---

10 A circle represents 12 people.
How many people are shown by 2¼ circles?

..... people

[1 mark]

---

11 The pictogram shows the number of hours of sunshine on some days last week.

Monday	■ ■ ■
Tuesday	■ ▮
Wednesday	■ ■
Thursday	
Friday	

Key
■ represents 2 hours

(a) How many hours of sunshine were there on Monday?

..... hours

[1 mark]

(b) How many hours of sunshine were there on Tuesday?

..... hours

[1 mark]

(c) On Thursday there were 5 hours of sunshine.
Show this on the pictogram.

[1 mark]

(d) On Friday there were 8 hours of sunshine.
Show this on the pictogram.

[1 mark]

---

12 A circle represents 8 people.
Draw the symbols to show 12 people.

[1 mark]

---

13 Here is a pictogram drawn by Jack. It shows the favourite colours of some pupils.

Red	
Blue	
Green	

Write down **two** things that are wrong with Jack's pictogram.

.....

.....

.....

[2 marks]

---

14 A pictogram uses a circle to show people.
The numbers to show are 20, 35, 15 and 40
Which key would be best: a circle represents 2, 5 or 7 people?
Give a reason for your answer.

.....

.....

[1 mark]

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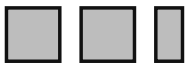
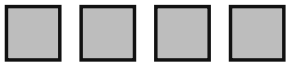
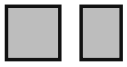
15 The pictogram shows the drinks sold in a café one morning.

Tea	
Coffee	
Juice	

Key
 represents 4 drinks

Complete the table.

Drink	Tea	Coffee	Juice
Number sold			

[2 marks]

---

16 A circle represents 6 people.
What does this symbol represent?



..... people

[1 mark]

---

17 The pictogram shows the number of cakes sold at a café.

Chocolate	
Lemon	
Carrot	
Vanilla	

Key
 represents 8 cakes

(a) How many chocolate cakes were sold?

.....

[1 mark]

(b) How many cakes were sold altogether?

.....

[2 marks]

(c) Each carrot cake costs £2
How much money was made from carrot cakes?

.....

[2 marks]

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18 Maya asked 20 people what pet they have. Here are her results.

Cat Dog Cat Fish Dog Cat Rabbit Cat Dog Fish

Cat Dog Fish Cat Rabbit Dog Cat Fish Cat Dog

(a) Complete the frequency table.

Pet	**Dog**	**Cat**	**Fish**	**Rabbit**
Frequency				

[2 marks]

(b) Draw a pictogram to show the results.

Dog	
Cat	
Fish	
Rabbit	

Key

represents 2 pets

[2 marks]

(c) Which pet is the mode?

.....

[1 mark]

---

19 A square represents 6 people.
Draw the symbols to show 9 people.

[1 mark]

---

20 In a pictogram, a circle represents 4 cars.
What does a quarter of a circle represent?

..... car

[1 mark]

21 A circle represents 20 people.
How many people are shown by ¾ of a circle?

..... people

[1 mark]

22 In a pictogram, a rectangle represents 3 hours.
How many rectangles are needed to show 15 hours?

..... rectangles

[1 mark]