

Name:

Exam Style Questions

Pictograms



Corbettmaths

Equipment needed: Ruler, pencil, calculator, pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

Videos 161, 162



Answers and Video Solutions



1. Leo owns a car dealership.
The table shows the number of cars sold each day last week.



Day	Cars Sold
Monday	4
Tuesday	6
Wednesday	3
Thursday	8
Friday	7

Draw a pictogram to show this information.
Include a key.

Key:  means 2 cars

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

(3)

2. Sophie asks 20 of her friends to choose their favourite sport.



Their replies are

Rugby	Football	Rugby	Hockey	Cricket
Football	Football	Rugby	Hockey	Football
Rugby	Cricket	Hockey	Football	Football
Football	Rugby	Football	Football	Rugby

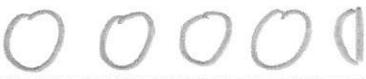
(a) Complete the tally and the frequency columns in the table below.

Sport	Tally	Frequency
Rugby		6
Football		9
Hockey		3
Cricket		2

(2)

(b) Draw a pictogram to show these results.

Key:  represents 2 people

Rugby	
Football	
Hockey	
Cricket	

(2)

(c) Sort the sports in order of popularity, starting with the most popular.

Football
Rugby
Hockey
Cricket

(1)

3. Erin is selling cupcakes to raise money for charity.

The pictogram shows some information about the cupcakes sold.



Chocolate	<input type="radio"/> 4	<input type="radio"/> 8	<input type="radio"/> 12	<input type="radio"/> 16
Coffee	<input type="radio"/> 4	<input type="radio"/> 8	<input type="radio"/> 12	<input type="radio"/> 16
Lemon	<input type="radio"/> 4	<input type="radio"/> 8	<input type="radio"/> 12	<input type="radio"/> 16
Strawberry	<input type="radio"/> 4	<input type="radio"/> 8	<input type="radio"/> 12	<input type="radio"/> 16

Key:
 represents 4 cupcakes

(a) What was the least popular flavour of cupcake?

coffee

(1)

(b) How many chocolate cupcakes were sold?

16

(1)

(c) How many more strawberry than lemon cupcakes were sold?

12 10

$$12 - 10 = 2$$

2

(1)

4. The table shows information about the number of phone calls received by some students last week.



Student	Frequency
Patrick	12
Andrew	20
David	6
George	9

Show this information on a pictogram.

Patrick	○ ○ ○
Andrew	○ ○ ○ ○ ○
David	○ (1)
George	○ ○ □

Key: ○ represents 4 phone calls

(3)

5. The pictogram shows the amount of money raised by students in some tutor groups at a school.



Key: $\bigcirc = £10$

Tutor group		Raised
S	$\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$	£60
T	$\bigcirc \bigcirc \bigcirc$	£30
E	$\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$	£45
P	$\bigcirc \bigcirc \bigcirc \bigcirc$	£35

(a) Complete the raised column.

(2)

(b) Complete the pictogram for tutor group E.

(2)

(c) How much money was raised altogether?

$$60 + 30 + 45 + 35 = £170$$

£...170.....
(1)

6. The pictogram shows the books Claire read last year.



Key represents 8 books

Romance		16
Crime		10
Horror		12
Factual		6

(a) How many romance books did Claire read?

16

(1)

(b) How many horror books did Claire read?

12

(1)

(c) How many books in total did Claire read last year?

$$\begin{array}{r} 16 \\ 10 \\ 12 \\ + 6 \\ \hline 44 \end{array}$$

44

(2)

7. The number of hours of sunshine on a day, across a number of cities is shown below.



= 2 hours of sunshine

Norwich	<input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/>	11
Dublin	<input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/>	8
Belfast	<input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/>	7
Aberdeen	<input type="circle"/> <input type="circle"/>	4
Cardiff	<input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/>	8
Glasgow	<input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/>	9

(a) How many more hours of sunshine was there in Norwich than Belfast?

$$11 - 7$$

..... hours
(1)

In Glasgow there was 9 hours of sunshine.

(b) Complete the pictogram.

(2)

8. Stefan records the number of cars in a car park at 9am each weekday last week.



He draws this pictogram to represent his results.

Key: represents 10 cars

Monday		20
Tuesday		30
Wednesday		10
Thursday		35
Friday		27.5

Write down a criticism of Stefan's pictogram.

As three-quarters of 10 is 7.5, Stefan's pictogram says 27.5 cars were sold on Friday - this is not possible.
He should change his key.

(1)

9. A box contains blue, green, pink and yellow beads.



The pictogram shows information about the number of each colour in the box.

Key: represents 4 beads

Blue		6
Green		16
Pink		13
Yellow		5

There is a total of 40 beads in the box.

Complete the pictogram.

$$6 + 16 + 13 = 35$$

(3)

10. Eirini is a GP.

 The pictogram shows information about the number of patients she sees each day last week.

Key:  represents 4 patients

Monday		12
Tuesday		18
Wednesday		9
Thursday		16
Friday		11

On Wednesday, Eirini saw 9 patients.

(a) Show this on the pictogram.

(1)

Each appointment lasts 15 minutes.

(b) Work out the total time Eirini spent setting patients last week.
Include suitable units.

$$12 + 18 + 9 + 16 + 11 = 66$$

$$66 \times 15 = 990 \text{ minutes}$$

$$990 \div 60 = 16.5 \text{ hours}$$

16.5 hours

(3)

11. Alfie, Barry, Conor and Dylan play for the same football team.



The pictogram shows some information about the number of goals they each scored last season.

Alfie	○ ○ ○ □
Barry	○ ○ □
Conor	○ ○ ○
Dylan	○

7

5

6

2

Key:

○ means 2 goals

The four players scored a total of 20 goals.

Alfie scored 7 goals.

Conor scored one more goal than Barry.

Complete the pictogram and key.

$$7 + 2 = 9$$

$$20 - 9 = 11$$

Conor = 6 goals

Barry = 5 goals

(4)

12. A bakery sells bread rolls.

 The pictogram, without a key, shows how many rolls were sold each day, over four days.

Wednesday	<input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/>
Thursday	<input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/>
Friday	<input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/> <input type="circle"/>
Saturday	<input type="circle"/> <input type="circle"/> <input type="circle"/>

54 bread rolls were sold on Thursday.

Work out how many bread rolls were sold on Saturday.

$$54 \div 4.5 = 12$$

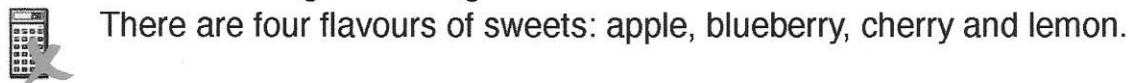
0 means 12 rolls

$$12 \times 3 = 36$$

36

.....
(3)

13. Finn has a bag containing 72 sweets.



The pictogram shows some information about number of apple and lemon sweets in the bag.

Key: represents sweets

Apple	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	36
Blueberry	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	20
Cherry	<input type="checkbox"/>	4
Lemon	<input type="checkbox"/> <input type="checkbox"/>	12

Finn counts a total of 48 apple and lemon sweets.

There are 20 blueberry sweets.

Complete the pictogram and key.

$$\begin{aligned}
 \text{Apples} &\rightarrow 4.5 \text{ squares} \\
 \text{lemon} &\rightarrow 1.5 \text{ squares} \\
 &+ \overline{+} \\
 &6 \text{ squares}
 \end{aligned}$$

$$48 \div 6 = 8 \text{ (1 square)}$$

(4)

$$\text{blueberry} \rightarrow 2.5 \text{ squares}$$

$$36 + 20 + 12 = 68$$

$$72 - 68 = 4$$