**1** The pictogram gives information about the number of eggs laid by Ellie's chickens in April, in May and in June.
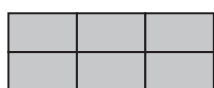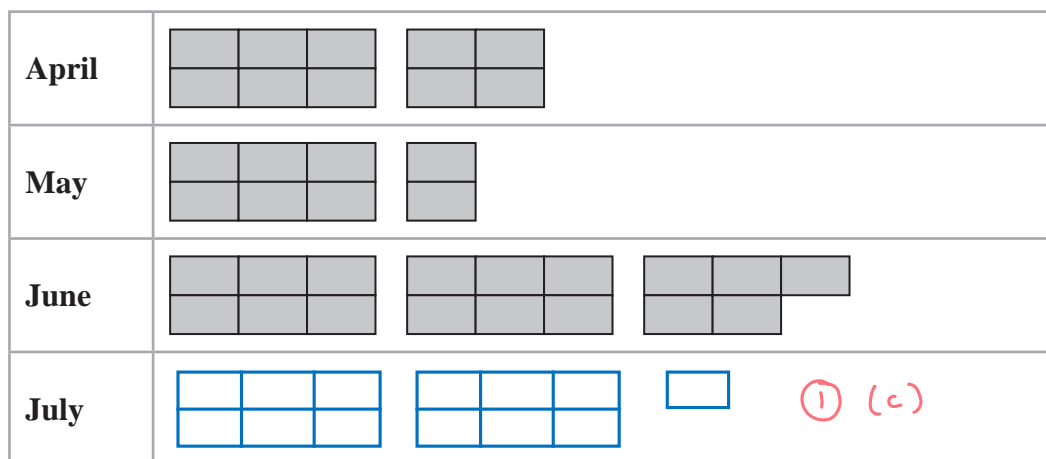
| April | |
| --- | --- |
| May | |
| June | |
| July | ① (c) |

represents 24 eggs

(a) How many eggs were laid by Ellie's chickens in April?

6 boxes = 24 eggs        April = 10 boxes

24 ÷ 6 = 4             10 × 4 = 40 eggs

So 1 box = 4 eggs

40 ①

.................................................
(1)

Ellie's chickens laid more eggs in June than in May.

(b) How many more?

May = 8 boxes        8 × 4 = 32 eggs

June = 17 boxes      17 × 4 = 68 eggs

① 68 − 32 = 36 eggs   (36 more eggs in June)
    ↑      ↑
  June   May

36 ①

.................................................
(2)

Ellie's chickens laid 52 eggs in July.

(c) Show this information on the pictogram.

52 ÷ 4 = 13 boxes

$\frac{13}{6}$ = 2 groups of 6   group the boxes into groups

and 1 remaining.   of 6, like the pictogram shows

(see pictogram).

(1)

**(Total for Question 1 is 4 marks)**

**2**   The pictogram shows information about the number of books sold in a shop each day from Monday to Thursday last week.

| | |
|---|---|
| **Monday** | ▦▦▢ |
| **Tuesday** | ▦▦▦▢ |
| **Wednesday** | ▦▦▦▦▦▦ |
| **Thursday** | ▦▦▦▦▢ |
| **Friday** | ▦▦▢ ①  |

Key:

▦  represents 20 books
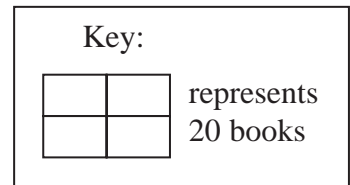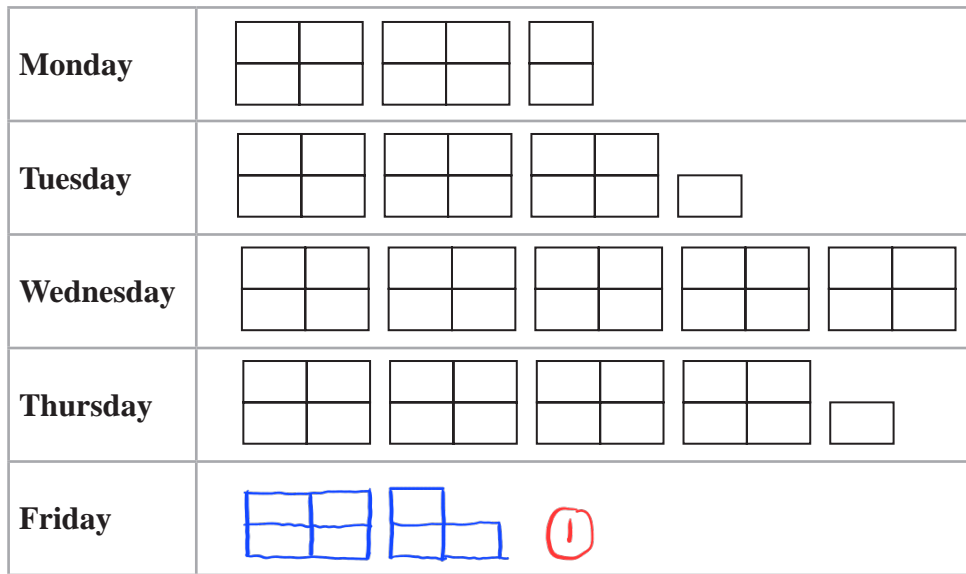
$\frac{35}{20} = 1\frac{3}{4}$

(a)  How many books were sold on Wednesday last week?

$5 \times 20 = 100$

                                                                    100   ①

**(1)**

35 books were sold in the shop on Friday last week.

(b)  Show this information on the pictogram.

**(1)**

Last week

  some books were sold in the shop on Saturday
  no books were sold in the shop on Sunday
  a total of 500 books were sold in the shop.

(c)  Work out the number of books that were sold in the shop on Saturday last week.

Total books sold from Monday to Friday :          ▢ represents 5 books

$(10 \times 5) + (13 \times 5) + (20 \times 5) + (17 \times 5) + (7 \times 5)$

$= 50 + 65 + 100 + 85 + 35$

$= 335$  ①

Total books sold on Saturday :
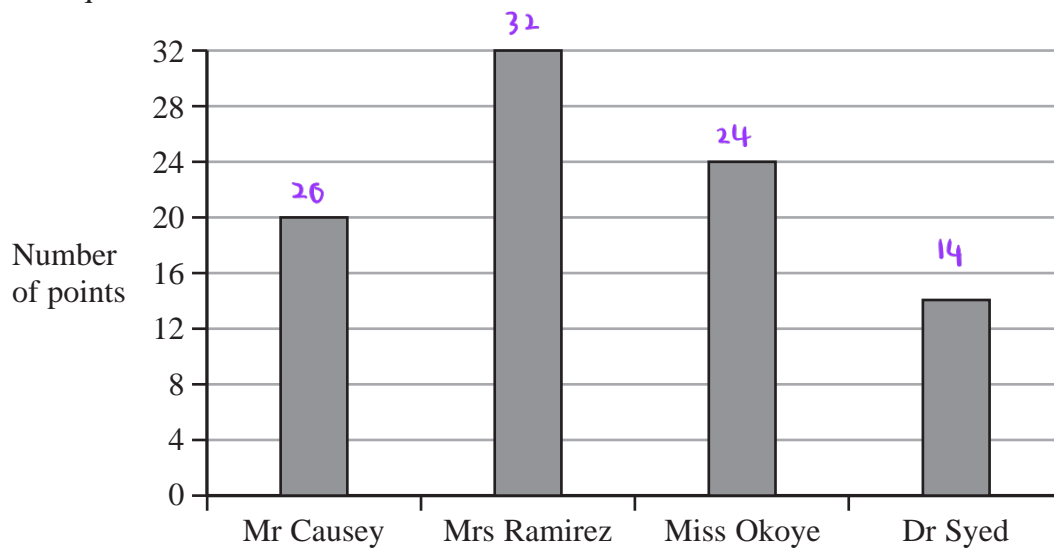
$500 - 335 = 165$ books                              165
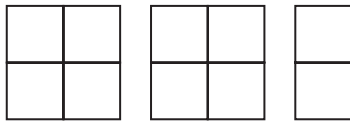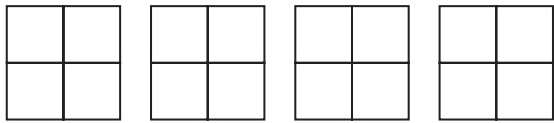              ①              ①

**(3)**

**(Total for Question 2 is 5 marks)**

**3**  The bar chart gives information about the number of points scored by each of four teachers in a quiz.

Number of points
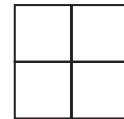
Mr Causey    Mrs Ramirez    Miss Okoye    Dr Syed

Joseph starts to draw a pictogram, shown below, for this information.
The pictogram shows the number of points scored by Mr Causey and the number of points scored by Mrs Ramirez.

| Mr Causey | |
| Mrs Ramirez | |
| Miss Okoye | |
| Dr Syed | |

Key:

represents ............8........... points  ①

⊞ = 8 points

□ = 2 points
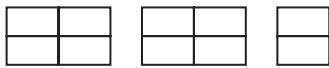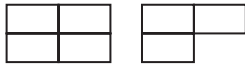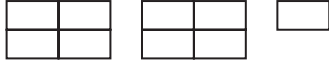
Complete the pictogram, including the key.
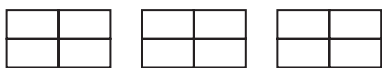
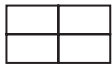Mrs Ramirez scored 32 points. Her points were illustrated with 4 big squares.

1 big square = $\frac{32}{4}$ = 8  ①

Miss Okoye = $\frac{24}{8}$ = 3  ①      Dr Syed = $\frac{14}{8}$ = $1\frac{3}{4}$

**(Total for Question 3 is 4 marks)**

**4** The pictogram gives information about the number of rickshaws sold from a garage each month from January to April.

| | |
|---|---|
| **January** | ▦ ▦ ▦ |
| **February** | ▦ ▦ � |
| **March** | ▦ ◫ |
| **April** | ▦ ▦ ▢ |
| **May** | ▦ ▢ ① |

Key:

▦

represents ......... **12** ......... rickshaws

36 rickshaws were sold in January.

(a) Complete the key.   $\dfrac{36}{3}$ = 12  ①

**(1)**

(b) How many rickshaws were sold in February?

$12 \times 2.5 = 30$

30 ①
......................................................
**(1)**

15 rickshaws were sold in May from the garage.

(c) Show this information on the pictogram.   ▦ = 12   ▢ = 3

**(1)**

Sandeep makes a profit of 5000 rupees on each rickshaw sold from the garage.

His target profit for January was 200 000 rupees.

(d) Did Sandeep reach his target profit for January?
You must show your working.

$36 \times 5000 = 180\,000$. No. Sandeep does not reach his target.
①   ①

**(2)**

**(Total for Question 4 is 5 marks)**

**5**  The pictogram gives some information about the number of parcels delivered by a delivery company on each of five days last week.

| | |
|---|---|
| **Monday** |  |
| **Tuesday** |  |
| **Wednesday** |  |
| **Thursday** |  |
| **Friday** |  |

On Monday, the delivery company delivered 20 parcels.

Work out the total number of parcels delivered by the delivery company on these five days.

10 small boxes = 20 parcels

1 small box = 2 parcels ①

Monday = 20

Tuesday = 16 × 2 = 32

Wednesday = 6 × 2 = 12  ①

Thursday = 3 × 2 = 6

Friday = 13 × 2 = 26

Total = 20 + 32 + 12 + 6 + 26  ①

= 96  ①

96

....................................................

**(Total for Question 5 is 4 marks)**

**6** The pictogram shows information about the number of emails Sophie received on each of four days.

| Monday | ⊠ ⊠ ⊠ ⊠  4 |
|---|---|
| Tuesday | ⊠ ⊠ ▷  2.5 |
| Wednesday | ⊠ ▷  1.5 |
| Thursday | ⊠ ⊠ ⊠ ◹  3.25 |
| Friday | ⊠ ⊠ ⊠ ▷  ① |

**Key:**

⊠

represents: 4 emails

(a) On which of Monday, Tuesday, Wednesday or Thursday did Sophie receive the least number of emails?

Wednesday ①

**(1)**

(b) Find the ratio of the number of emails Sophie received on Monday to the number of emails Sophie received on Tuesday.
Give your ratio in its simplest form.

Monday : Tuesday = 4 : 2.5 ①
×2 ( ) ×2
8 : 5 ①

8 : 5

**(2)**

On Friday, Sophie received 14 emails.

(c) Show this information on the pictogram.  $\frac{14}{4} = 3.5$

**(1)**

On Friday, 6 of the 14 emails Sophie received were from Kamil.

(d) Write 6 as a fraction of 14
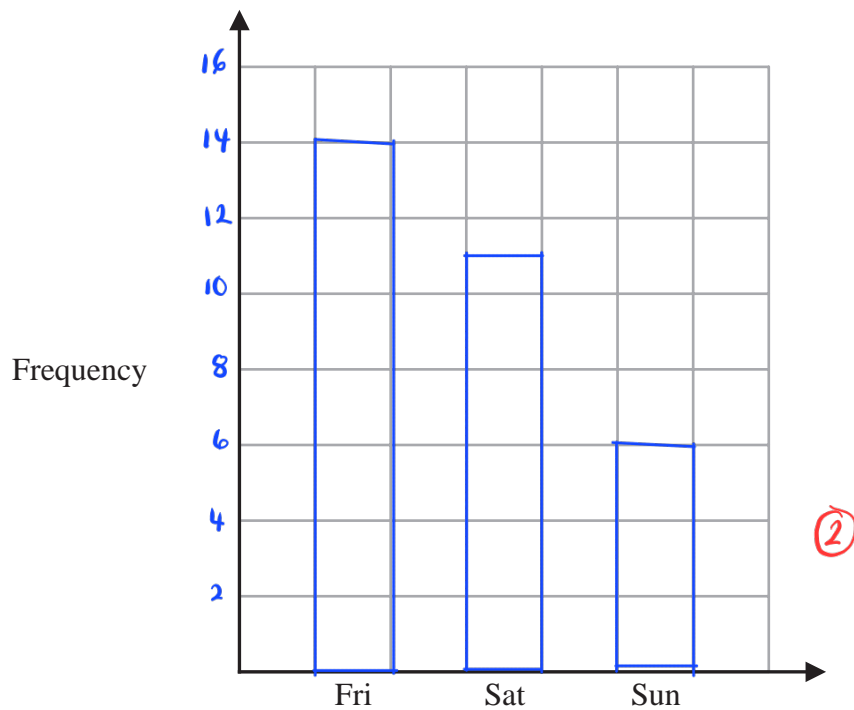Write your fraction in its simplest form.

$\frac{6 \div 2}{14 \div 2} = \frac{3}{7}$ ①
①

$\frac{3}{7}$

**(2)**

On Friday, Sophie received 14 emails, on Saturday she received 11 emails and on Sunday she received 6 emails.

(e) Draw a bar chart to show the number of emails Sophie received on each of Friday, Saturday and Sunday.
Complete the frequency axis.



(2)

**(Total for Question 6 is 8 marks)**

**7** The pictogram shows information about the number of loaves of bread sold in a bakery each day from Tuesday to Friday last week.

| | |
|---|---|
| **Monday** | ⬭ ⬭ ⬭ ◖ ①|
| **Tuesday** | ⬭ ⬭ ◖ |
| **Wednesday** | ⬭ ◖ |
| **Thursday** | ◖ |
| **Friday** | ⬭ ⬭ ⬭ |

**Key:** ⬭ represents 6 loaves of bread

(a) How many loaves of bread were sold on Friday?

$6 \times 3 = 18$

18  ①

**(1)**

The total number of loaves sold in the bakery from Monday to Friday last week was 66

(b) (i) Work out the number of loaves sold on Monday last week.

Monday + $(2.5 \times 6) + (1.5 \times 6) + (0.5 \times 6) + (3 \times 6) = 66$

Monday + $15 + 9 + 3 + 18 = 66$

Monday + $45 = 66$

Monday = $66 - 45$ ① = 21 ①

21

**(2)**

(ii) Show this information for Monday on the pictogram.
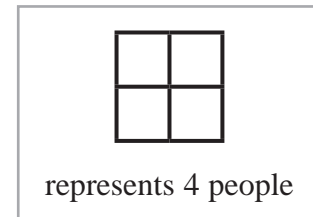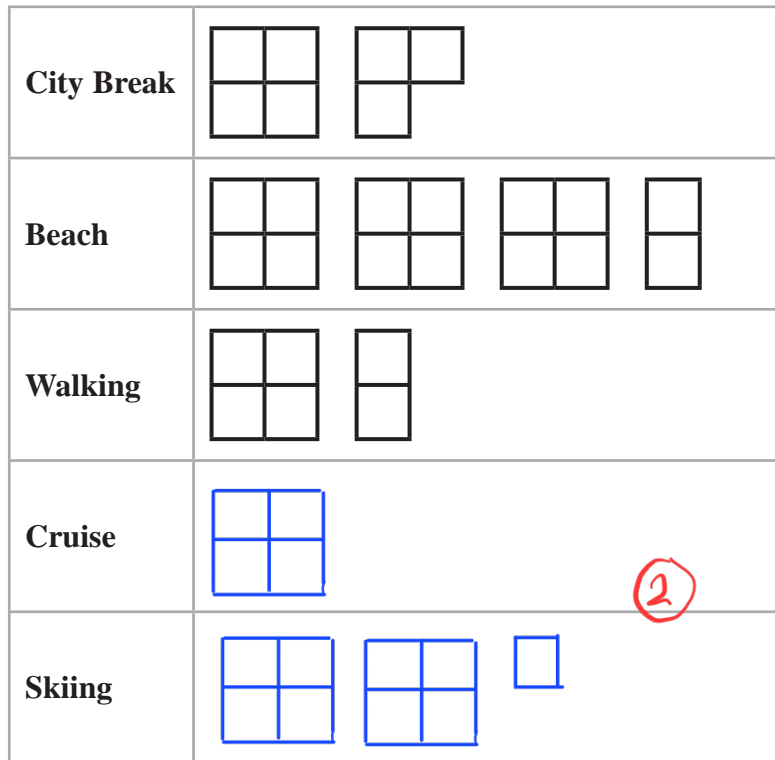
$\frac{21}{6} = 3.5$

**(1)**

**(Total for Question 7 is 4 marks)**

**8** 40 people were asked to name their favourite type of holiday.
The pictogram gives information about the number of these people who said each of
City Break or Beach or Walking.

| | |
|---|---|
| **City Break** | |
| **Beach** | |
| **Walking** | |
| **Cruise** | ② |
| **Skiing** | |

represents 4 people

(a) How many of these people said Beach?

14 ①

**(1)**

4 people said Cruise.
9 people said Skiing.

(b) Show this information on the pictogram.

**(2)**

One person from the 40 people asked is selected at random.

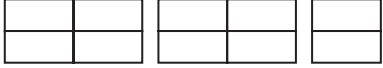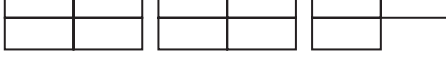(c) Find the probability that this person said City Break.

City Break = 7

$\frac{7}{40}$  ②

$\frac{7}{40}$

**(2)**

**(Total for Question 8 is 5 marks)**

**9** The pictogram shows information about the number of text messages Colin sent on each of four days last week.

| Monday |  |
|--------|--|
| **Tuesday** |  |
| **Wednesday** |  |
| **Thursday** |  |
| **Friday** |  |

**Key:**
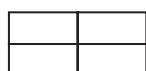
represents 8 text messages

(a) How many text messages did Colin send on Tuesday?

$2.5 \times 8 = 20$

20 ①

**(1)**

(b) Work out the total number of text messages that Colin sent on the four days from Monday to Thursday last week.

$32 + 20 + 18 + 22 = 92$

92

**(2)**

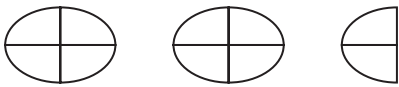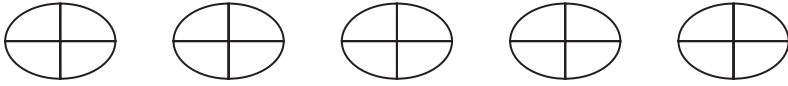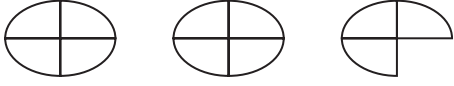On Friday, Colin sent 26 text messages.

(c) Show this information on the pictogram.

**(1)**

**(Total for Question 9 is 4 marks)**

**10** The pictogram shows information about the total weight of potatoes grown last year in each of five countries.

| | |
|---|---|
| **Bangladesh** | |
| **USA** | |
| **Germany** | |
| **Poland** | |
| **France** | |
| **The Netherlands** | |

**Key:** ⊕ represents 4 million tonnes of potatoes

The pictogram shows one country where the total weight of potatoes grown last year was 20 million tonnes.

(a) Which country?

............................................... USA ①...............................................

**(1)**

Last year, the weight of potatoes grown in The Netherlands was 6 million tonnes.

(b) Show this information on the pictogram.

**(1)**

(c) Work out the total weight of potatoes grown in Germany **and** in France last year.

$(2.75 + 1.75) \times 4$ ①

$= 18$ ①

18

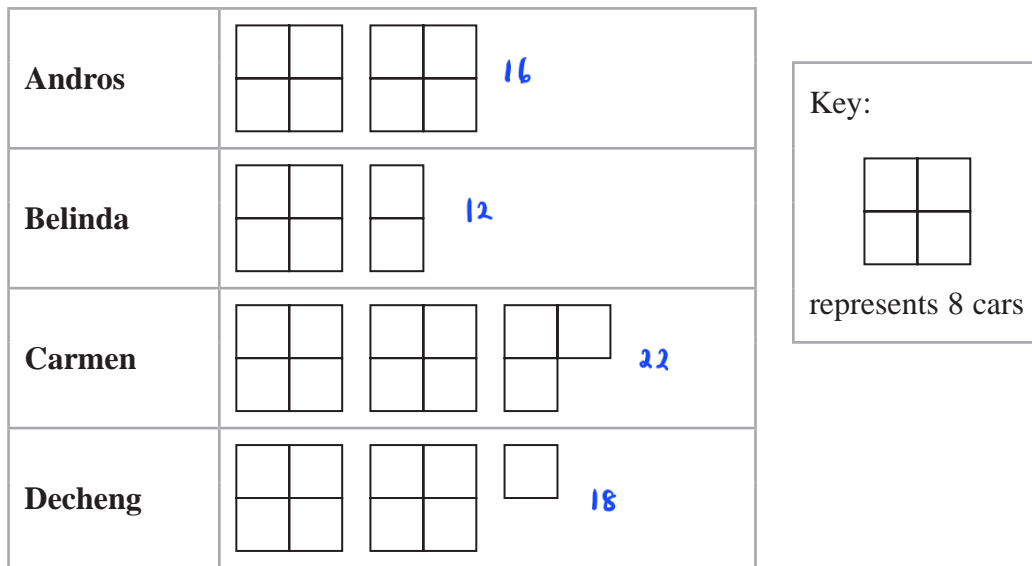....................................................... million tonnes

**(2)**

**(Total for Question 10 is 4 marks)**

**11**   The pictogram gives some information about the number of cars sold by each of the four employees of Best Cars in April.

| Andros | (pictogram) 16 |
|---|---|
| Belinda | (pictogram) 12 |
| Carmen | (pictogram) 22 |
| Decheng | (pictogram) 18 |

Key:

(square) represents 8 cars

In March, Best Cars sold 60 cars in total.

Its target for April was to sell 15% more cars in total than it sold in March.

Show that Best Cars did not meet its target.
Show your working clearly.

Total cars sold in April : 16 + 12 + 22 + 18 = 68  Cars  ①
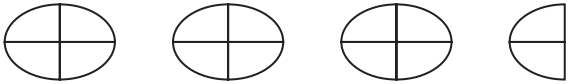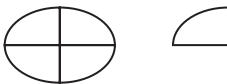
60 × 1·15 = 69 cars
①          ①
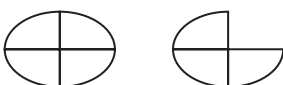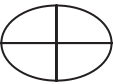
∴ Best Cars sold 1 car less from achieving its target.

**(Total for Question 11 is 4 marks)**

**12** Peter owns boarding kennels for dogs.

The pictogram shows information about the number of dogs that were at the kennels each day from Monday to Thursday last week.

| | |
|---|---|
| **Monday** | ⊕ ⊕ ⊕ ◖ 28 |
| **Tuesday** | ⊕ ◰ 10 |
| **Wednesday** | ⊕ ⊖ 14 |
| **Thursday** | ⊕ ⊕ ◖ 20 |
| **Friday** | ⊕ ⊕ ◰ 18 ① |

Key: ⊕ represents 8 dogs

(a) How many dogs were at the kennels on Monday?

28 ①

.......................................................

**(1)**

18 dogs were at the kennels on Friday.

(b) Show this information on the pictogram.

**(1)**

Peter gave each dog 2 biscuits each day.

(c) Work out the total number of biscuits that Peter gave the dogs during the five days from Monday to Friday last week.

Total number of dogs : 28 + 10 + 14 + 20 + 18 = 90

Kennels : 90 × 2 = 180 ① ①

180

.......................................................

**(2)**

**(Total for Question 12 is 4 marks)**