Pictograms

Grade 1 | Worked solutions

GCSE Statistics topic practice

1 The pictogram shows the animals a vet treated in one day.

a. How many dogs did the vet treat? (1)

b. How many cats did the vet treat? (1)

c. Work out the total number of animals the vet treated. (1)

Dog	
Cat	
Rabbit	
Hamster	

Key:  = 2 animals

(3 marks)

a) 1 circle = 2 animals

4 x 2 = 8

b) half a circle = 1 animal

3 x 2 + 1 = 7

c) rabbits

2 + 1 = 3

hamsters

2 x 2 = 4

total

8 + 7 + 3 + 4 = 22

a) 8 b) 7 c) 22

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2 The pictogram shows the number of books borrowed from a school library on four days.

a. How many books were borrowed on Tuesday? (1)

b. How many more books were borrowed on Wednesday than on Thursday? (1)

c. On Friday, 14 books were borrowed. Complete the pictogram. (1)

d. Work out the total number of books borrowed in the five days. (1)

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

Key:  = 4 books

(4 marks)

a) 1 circle = 4 books, so half a circle = 2 books

$2 \times 4 + 2 = 10$

10 books

b) Wednesday has 4 circles

$4 \times 4 = 16$

Thursday, three quarters of a circle = 3 books

$4 + 3 = 7$

$16 - 7 = 9$

9 more books

c)

$14 = 12 + 2$

3 whole circles and half a circle

d) Monday has 3 circles

$3 \times 4 = 12$

$12 + 10 + 16 + 7 + 14 = 59$

a) 10 b) 9 c) 3 and a half circles d) 59

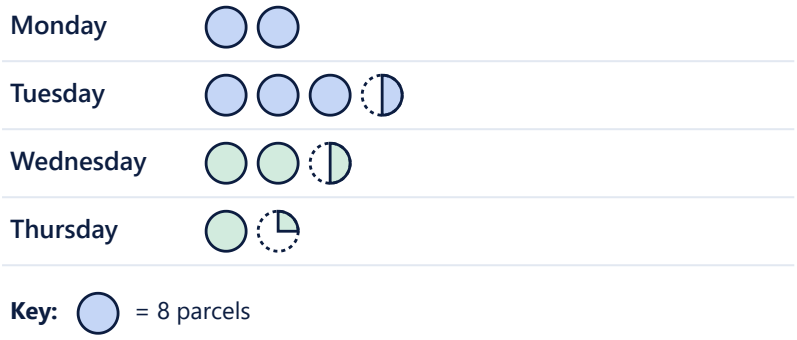
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3 The pictogram shows the number of parcels delivered to an office on Monday and on Tuesday.

a. How many parcels were delivered on Tuesday? (1)

b. 20 parcels were delivered on Wednesday and 10 parcels were delivered on Thursday.
Use this information to complete the pictogram. (2)

c. How many circles are needed to show 44 parcels? (1)



(4 marks)

a) 1 circle = 8 parcels, so half a circle = 4 parcels

$3 \times 8 + 4 = 28$

b) Wednesday

$20 = 16 + 4$

2 whole circles and half a circle

Thursday, a quarter of a circle = 2 parcels

$10 = 8 + 2$

1 whole circle and a quarter of a circle

c)

$44 = 40 + 4$

$40 \div 8 = 5$

5 whole circles and half a circle

a) 28 b) 2 and a half, 1 and a quarter c) 5 and a half

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4 The pictogram shows the number of trees planted by four schools.
The key is not complete.

Ashby School planted 18 trees.

a. Work out how many trees one circle represents. Complete the key. (2)

b. How many trees did Dene School plant? (1)

c. How many more trees did Dene School plant than Castle School? (1)

Ashby	● ● ●
Brook	● ● ● ● ◐
Castle	● ●
Dene	● ● ● ● ● ◐

Key: ● = 6 trees

(4 marks)

a) Ashby has 3 circles

$18 \div 3 = 6$

1 circle = 6 trees

b) half a circle = 3 trees

$5 \times 6 + 3 = 33$

c) Castle has 2 circles

$2 \times 6 = 12$

$33 - 12 = 21$

a) 6 trees b) 33 c) 21

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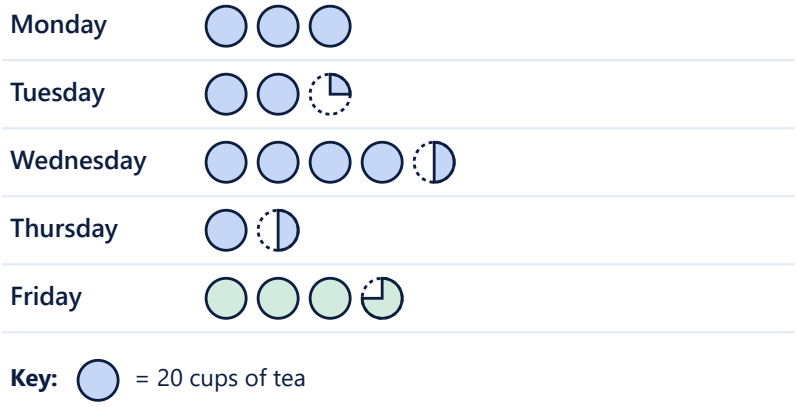
5 The pictogram shows the number of cups of tea sold in a cafe on four days.

a. How many cups of tea were sold on Tuesday? (1)

b. On Friday, 75 cups of tea were sold. Complete the pictogram. (1)

c. Jay says, "The cafe sold twice as many cups of tea on Monday as on Thursday."
Is Jay correct? You must show your working. (2)

d. On Saturday, 43 cups of tea were sold.
Explain why it is hard to show 43 cups on this pictogram. (1)



(5 marks)

a) 1 circle = 20 cups, so a quarter of a circle = 5 cups

$2 \times 20 + 5 = 45$

b)

$75 = 60 + 15$

3 whole circles and three quarters of a circle

c) Monday

$3 \times 20 = 60$

Thursday

$20 + 10 = 30$

$2 \times 30 = 60$

Yes, Jay is correct

d)

A quarter of a circle is 5 cups

43 is not a multiple of 5

so the part circle cannot be drawn accurately

a) 45 b) 3 and three quarters c) Yes d) not a multiple of 5

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