Answers - Bar charts, pictograms and tables

Year: Year 3

Answer to Question 1

a. Dogs: one gate of 5 and 3 more marks. 5 + 3 = **8**.
b. Cats: one gate of 5 and 1 more mark. 5 + 1 = **6**.
c. Rabbits: 4 single marks, no gate. **4**.
d. Fish: one gate of 5 and 2 more marks. 5 + 2 = **7**.
e. Each child chose one pet, so add all the frequencies: 8 + 6 = 14, 14 + 4 = 18, 18 + 7 = **25** children.

Answer to Question 2

a. Read the Wednesday row of the table: **15** lunches.
b. Look for the smallest number in the column: 5, on **Friday**.
c. Add Monday and Tuesday: 12 + 8 = **20** lunches.
d. Add all five days, looking for easy pairs: 12 + 8 = 20, 15 + 5 = 20, then 20 + 20 + 10 = **50** lunches.

Answer to Question 3

a. Monday has 3 circles and each circle stands for 2 balloons: 3 × 2 = **6** balloons.
b. Tuesday has 5 circles: 5 × 2 = **10** balloons.
c. Wednesday has 4 circles: 4 × 2 = **8** balloons.
d. The day with the most circles sold the most balloons. Tuesday has 5 circles, so **Tuesday** sold the most (10 balloons).

Answer to Question 4

a. Go to the top of the football bar and read across to the scale: **12** children chose football.
b. The dance bar reaches the line for 8, so **8** children chose dance.
c. The tallest bar shows the most popular activity. The football bar is the tallest, so **football** is the most popular.
d. Football has 12 and swimming has 6. The difference is 12 − 6 = **6** more children.

Answer to Question 5

a. All the numbers are 5 or less, so **steps of 1** fit well: the chart stays small and every bar ends on a line.
b. All the numbers are multiples of 10, so **steps of 10** are best. The scale only needs to go up to 40.
c. 12, 8, 16 and 4 are all even numbers up to 16, so **steps of 2** work: every bar ends exactly on a line. Steps of 5 or 10 would make the bars hard to read.
d. 25, 15, 30 and 10 are all multiples of 5, so **steps of 5** are best and the scale goes up to 30.

Answer to Question 6

a. Each star stands for 5 stickers. Anna has 4 stars: 4 × 5 = **20** stickers.
b. Ben has 7 stars: 7 × 5 = **35** stickers.
c. Cara has 6 stars: 6 × 5 = **30** stickers.
d. Add the three totals: 20 + 35 = 55, then 55 + 30 = **85** stickers. Another way: 17 stars × 5 = 85.

Answer to Question 7

a. Read the top of the cheese bar against the scale: **14** cheese sandwiches.
b. The egg bar shows 6. The difference is 14 − 6 = **8** more cheese sandwiches.
c. Read every bar: cheese 14, ham 10, egg 6, tuna 8. Add them: 14 + 10 = 24, 24 + 6 = 30, 30 + 8 = **38** sandwiches.
d. 10 ham sandwiches were sold at £2 each: 10 × £2 = **£20**.

Answer to Question 8

a. 4 symbols × 10 = **40**.
b. 7 symbols × 10 = **70**.
c. 70 − 40 = **30**.
d. Total for Mon, Wed, Thu: 40 + 20 + 70 = 130. 160 is **more**.

Answer to Question 9

a. **February**, 30 mm.
b. 45 − 35 = **10 mm**.
c. 45 + 30 + 35 + 40 = **150 mm**.
d. 160 − 150 = **10 mm**.

Answer to Question 10

a. **18**.
b. **Dev**, with 6.
c. 18 + 12 + 6 + 14 = **50**.
d. Ella + Dev = 12 + 6 = 18. Sam scored 18, which is **equal**, not more. He is not right.

Answer to Question 11

a. 15 + 10 + 20 + 5 = **50**.
b. Burgers got the most: 20 − 5 = **15** more.
c. The numbers are multiples of 5 and the biggest is 20, so a scale in steps of **5** fits all bars exactly.
d. 15 + 10 = **25**, which is half of the total.

Answer to Question 12

a. 5 symbols × 4 = **20**.
b. 3 symbols × 4 = **12**.
c. 40 − 20 − 12 = **8**. That is 2 symbols.
d. 4 ÷ 4 = **1 symbol**.

Answer to Question 13

a. 20 + 8 = **28**.
b. Dance has 8, and 8 + 4 = 12. **Gym** has 12.
c. 16 + 12 + 20 + 8 = **56**.
d. Use steps of 4 up to 20. The bars have heights **16, 12, 20 and 8**.

Answer to Question 14

a. 28 − (3 + 6 + 5) = 28 − 14 = **14**.
b. **June**, with 6.
c. 6 ÷ 2 = **3** symbols.
d. 5 ÷ 2 = 2 and a half. Draw **2 whole symbols and 1 half symbol**.

Answer to Question 15

a. Read the top of the bar: **£40**.

b. 40 − 25 = **£15**.
c. 40 + 25 + 15 + 30 = **£110**.
d. 150 − 110 = **£40** more. Half of 150 is 75. They raised more than half, so it is fair to say they went past halfway.

Answer to Question 16

a. 24 + 12 + 18 = 54. 60 − 54 = **6**.
b. Football: 24 ÷ 6 = **4**. Tennis: 12 ÷ 6 = **2**. Swimming: 18 ÷ 6 = **3**. Other: 6 ÷ 6 = **1**.
c. 4 + 2 + 3 + 1 = **10**. Check: 10 × 6 = 60.
d. The numbers 24, 12, 18 and 6 are all multiples of 6, so steps of **6** fit every bar exactly.

Answer to Question 17

a. Warmest: Saturday at 26°C. Coolest: Tuesday at 18°C.
b. 26 − 18 = **8°C**.
c. The biggest is 26. Use steps of 2 up to 26, or steps of 5 up to 30. **Steps of 2** show every value exactly.
d. 21 + 24 + 23 = **68**. In order: 21, 23, 24. The middle one is **23**.

Answer to Question 18

a. 8 symbols × 10 = **80**.
b. 6 symbols × 10 = **60**.
c. Half of 80 = **40** bottles, which is 4 symbols.
d. 80 + 60 + 40 = 180. 250 − 180 = 70 more are needed. **No**, not yet.

Answer to Question 19

a. Dog is 8, the biggest. **True**.
b. 6 is not 2 × 4 = 8. **False**. Dogs are twice as popular as rabbits.
c. 8 + 6 + 4 = **18**. **True**.
d. 6 − 4 = 2. **True**.

Answer to Question 20

a. 2 × 8 = **16**.
b. 10 + 16 + 8 = 34. 40 − 34 = **6**.
c. The biggest number is 16. Steps of 2 up to 16 show every value. The bars are **10,**

16, 8 and 6 tall.

d. Red + yellow = 10 + 6 = 16. Blue = 16. They are **equal**, so the statement is not true.