Worksheet - Bar charts, pictograms and tables

Year: Year 3 · 20

Show your working.

Question 1

Question 1 – Tally charts *(Section A · Practice)*

Look at the tally chart for children's pets. Write the frequency for each pet.

a. Dogs: |||| ||||
b. Cats: |||| |
c. Rabbits: ||||
d. Fish: |||| ||
e. How many children are there in the survey?

Question 2

Question 2 – Reading a table *(Section A · Practice)*

The table shows the number of school lunches sold each day.

Day	Lunches sold
Monday	12
Tuesday	8
Wednesday	15
Thursday	10
Friday	5

a. How many lunches were sold on Wednesday?
b. Which day sold the fewest?
c. How many were sold on Monday and Tuesday together?
d. How many were sold altogether in the week?

Question 3

Question 3 – Reading a pictogram *(Section A · Practice)*

Look at the pictogram. One circle stands for 2 balloons.

Monday	● ● ●
Tuesday	● ● ● ● ●

Wednesday	● ● ● ●

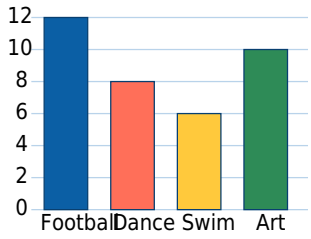
Key: one circle stands for 2 balloons

a. How many balloons were sold on Monday?
b. How many were sold on Tuesday?
c. How many were sold on Wednesday?
d. Which day sold the most?

Question 4

Question 4 – Reading a bar chart *(Section A · Practice)*

The bar chart shows how many children chose each activity.



a. How many chose football?
b. How many chose dance?
c. Which activity is the most popular?
d. How many more chose football than swimming?

Question 5

Question 5 – Choose the scale *(Section A · Practice)*

For each set of numbers, say which scale you would use on the vertical axis of a bar chart: steps of 1, 2, 5 or 10.

a. 3, 5, 4, 2
b. 10, 20, 40, 30
c. 12, 8, 16, 4
d. 25, 15, 30, 10

Question 6

Question 6 – Complete the table *(Section A · Practice)*

Complete the table, using the pictogram key: one symbol stands for 5 stickers.

Anna	★ ★ ★ ★
Ben	★ ★ ★ ★ ★ ★ ★

Cara	★ ★ ★ ★ ★ ★

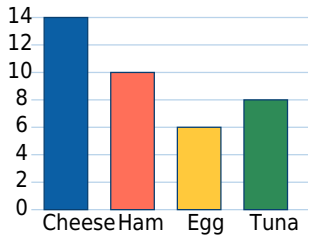
Key: one star stands for 5 stickers

a. Anna has 4 symbols
b. Ben has 7 symbols
c. Cara has 6 symbols
d. How many stickers do the three children have in total?

Question 7

Question 7 – The sandwich shop *(Section B · Real-life practice)*

The bar chart shows the number of sandwiches sold at the school cafe on Friday.



a. How many cheese sandwiches were sold?
b. How many more cheese than egg sandwiches?
c. How many sandwiches in total?
d. Each sandwich costs £2. How much money did the cafe take for ham sandwiches?

Question 8

Question 8 – The library *(Section B · Real-life practice)*

A pictogram shows the number of books borrowed from the school library in a week. One book symbol stands for 10 books.

Monday	■ ■ ■ ■
Wednesday	■ ■
Thursday	■ ■ ■ ■ ■ ■ ■

Key: one symbol stands for 10 books

a. How many books were borrowed on Monday?
b. How many were borrowed on Thursday?
c. How many more were borrowed on Thursday than on Monday?
d. The library lent 160 books in the week. Is this more or less than the total for these 3 days?

Question 9

Question 9 – Rainfall in the village *(Section B · Real-life practice)*

The table shows the rainfall in millimetres each month in a Welsh village.

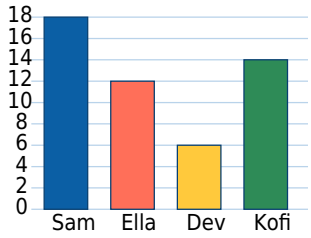
Month	Rainfall (mm)
Jan	45
Feb	30
Mar	35
Apr	40

a. Which month had the least rain?
b. How much more rain fell in January than in March?
c. What was the total rainfall for the four months?
d. The village needs 160 mm for the reservoir. How much more is needed?

Question 10

Question 10 – Football goals *(Section B · Real-life practice)*

The bar chart shows goals scored by four players in a season.



a. How many goals did Sam score?
b. Who scored the fewest goals?
c. How many goals did the four players score in total?
d. Sam says "I scored more than Ella and Dev together." Is he right?

Question 11

Question 11 – Favourite lunch *(Section B · Real-life practice)*

Year 3 vote for their favourite lunch. The results are shown in the table.

Lunch	Votes
Pizza	15
Pasta	10
Burgers	20
Salad	5

a. How many children voted altogether?
b. Which lunch got the most votes? How many more than salad?
c. Choose a scale for a bar chart. Explain your choice.
d. Pizza and pasta together got how many votes?

Question 12

Question 12 – Walking to school *(Section B · Real-life practice)*

A survey asks 40 children how they travel to school. The pictogram shows the results. One symbol stands for 4 children.

Walk	● ● ● ● ●
Bus	● ● ●

Key: one symbol stands for 4 children

a. How many children walk?
b. How many come by bus?
c. How many come by car?
d. Draw how many symbols are needed for bicycle if 4 children cycle.

Question 13

Question 13 – After-school clubs *(Section B · Real-life practice)*

The school runs four clubs. The table shows how many children joined each club.

Club	Children
Swimming	16
Gym	12
Football	20
Dance	8

a. How many children joined the football and dance clubs together?
b. Which club has exactly 4 more children than dance?
c. How many children joined the four clubs?
d. Draw a bar chart. What scale and heights would you choose?

Question 14

Question 14 – Birthday months *(Section B · Real-life practice)*

Mr Ali records the birthday months of his class of 28 children. The table has some missing numbers.

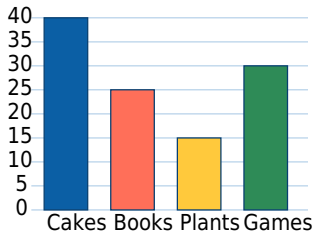
a. March has 3 birthdays, June has 6 and September has 5. The remaining months

have the rest. How many birthdays are in the other months?
b. Which month has the most birthdays among those three?
c. Draw a pictogram where one cake symbol stands for 2 birthdays. How many symbols for June?
d. How many symbols for September? Can you draw it exactly?

Question 15

Question 15 – Problem: the school fair stalls *(Section C · Problem solving)*

Four stalls at the school fair took money. The bar chart shows how much each stall took, in pounds.



a. How much did the cake stall take?
b. How much more did the cake stall take than the book stall?
c. What was the total taken by all four stalls?
d. The school wants £150. How much more is needed? Is it fair to say they were halfway?

Question 16

Question 16 – Problem: favourite sports *(Section C · Problem solving)*

Zoe asks 60 children which sport they like best. She starts to make a table.

Sport	Children
Football	24
Tennis	12
Swimming	18

a. Football 24, tennis 12, swimming 18. How many chose another sport?
b. Zoe draws a pictogram with a ball symbol for 6 children. How many symbols for each sport?
c. How many symbols are needed altogether?
d. Which scale would you use for a bar chart? Why?

Question 17

Question 17 – Problem: temperature at the seaside *(Section C · Problem solving)*

The table shows the midday temperature in a seaside town over six days in summer.

Day	Temperature (°C)
Monday	21
Tuesday	18
Wednesday	24
Thursday	22
Friday	23
Saturday	26

a. Which day was the warmest and which was the coolest?
b. What is the difference between the warmest and the coolest day?
c. Draw a bar chart. What scale would you choose?
d. The temperatures on Monday, Wednesday and Friday are 21, 24 and 23. What is the total? What is the middle number when you put them in order?

Question 18

Question 18 – Problem: the recycling project *(Section C · Problem solving)*

Four classes collect plastic bottles for recycling. The pictogram shows the bottles collected. One bottle symbol stands for 10 bottles.

Class 3A	● ● ● ● ● ● ● ●
Class 3B	● ● ● ● ● ●
Class 3C	● ● ● ●

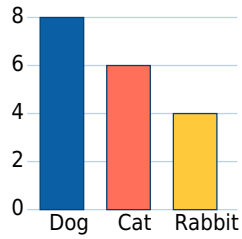
Key: one symbol stands for 10 bottles

a. How many bottles did Class 3A collect?
b. How many bottles did Class 3B collect?
c. How many bottles did Class 3C collect if it collected half as many as 3A?
d. The classes need 250 bottles for a prize. Together 3A, 3B and 3C collect how many? Do they win the prize?

Question 19

Question 19 – Problem: spot the mistakes *(Section C · Problem solving)*

Priya makes a bar chart for the number of pets: dog 8, cat 6, rabbit 4. She wrote these statements. Check each one.



a. "The dog bar is the tallest."
b. "Cats are twice as popular as rabbits."
c. "There are 18 pets in all."
d. "Cat has 2 more than rabbit."

Question 20

Question 20 – Challenge: missing numbers in the chart *(Section D · Challenge)*

Mr Singh asks 40 children about their favourite colour. Some numbers are missing from his table.

Colour	Children
Red	10
Blue	?
Green	8
Yellow	?

a. Blue has twice as many children as green. How many chose blue?
b. How many chose yellow if all 40 children answered?
c. Draw a bar chart. What scale would you choose and how tall is each bar?
d. Is it true that red and yellow together got more than blue? Explain.