Tally charts and frequency tables

Grade 1 | Worked solutions

GCSE Statistics topic practice

1 Some pupils in class 7B were asked for their favourite flavour of crisps.
The tally chart shows the results.

Flavour	Tally	Frequency
Ready salted	𝍸 ||	
Cheese and onion	𝍸 𝍸	
Salt and vinegar	||||	
Prawn cocktail	𝍸 |	

a. Complete the frequency column. (2)

b. Work out how many pupils were asked. (1)

(3 marks)

a) each crossed group is 5

Ready salted = 5 + 2

= 7

Cheese and onion = 5 + 5

= 10

Salt and vinegar = 4

Prawn cocktail = 5 + 1

= 6

b) add the frequencies

7 + 10 + 4 + 6 = 27

27 pupils

a) 7, 10, 4, 6 b) 27

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2 Callum records the type of each bird that visits his garden one morning.

Robin, Sparrow, Blackbird, Sparrow, Pigeon,
Sparrow, Robin, Blackbird, Sparrow, Pigeon,
Sparrow, Blackbird, Robin, Sparrow, Sparrow,
Blackbird, Sparrow, Robin, Pigeon, Blackbird

a. Complete the tally chart and frequency table. (2)

b. Write down the type of bird that Callum saw the most. (1)

c. How many more sparrows than pigeons did Callum see? (1)

Bird	Tally	Frequency
Robin		
Sparrow		
Blackbird		
Pigeon		

(4 marks)

a) one tally mark for each bird, in groups of 5

Robin = 4

Sparrow = 8

Blackbird = 5

Pigeon = 3

Check the total

4 + 8 + 5 + 3 = 20

b)

Highest frequency is 8

Sparrow

c)

8 - 3 = 5

a) 4, 8, 5, 3 b) Sparrow c) 5

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3 Ravi asks 24 pupils how many pets they have. Here are his results.

1 0 2 1 3 1 0 2 1 1 4 2
1 0 3 2 1 0 2 1 3 0 1 2

a. Complete the tally chart and frequency table. (2)

b. How many pupils have more than 2 pets? (1)

c. Ravi says, "Most of these pupils have at least one pet."
Is Ravi correct? Give a reason for your answer. (1)

Number of pets	Tally	Frequency
0		
1		
2		
3		
4		

(4 marks)

a) one tally mark for each pupil

0 pets = 5

1 pet = 9

2 pets = 6

3 pets = 3

4 pets = 1

Check the total

5 + 9 + 6 + 3 + 1 = 24

b) more than 2 means 3 pets or 4 pets

3 + 1 = 4

c) 5 pupils have no pets

24 - 5 = 19

19 out of 24 have at least one pet

Yes, Ravi is correct

a) 5, 9, 6, 3, 1 b) 4 c) Yes, 19 out of 24

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4 Kai rolls an ordinary dice 30 times. The frequency table shows his results.
One frequency is missing.

Score	1	2	3	4	5	6
Frequency	4	6		5	7	3

a. Work out the missing frequency. (2)

b. Kai says, "The dice landed on an even number more than half of the time."
Is Kai correct? You must show your working. (2)

(4 marks)

a) the frequencies add up to 30

$4 + 6 + 5 + 7 + 3 = 25$

$30 - 25 = 5$

b) the even scores are 2, 4 and 6

$6 + 5 + 3 = 14$

half of the rolls

$30 \div 2 = 15$

$14 < 15$

No, Kai is not correct

a) 5 b) No, 14 is less than 15

5 Mia wants to find out how the pupils in her year travel to school.
She designs this data collection sheet.

How I travel	Number of pupils
Walk	
Bus	
Car	

a. Write down two ways Mia could improve her data collection sheet. (2)

b. Mia improves her sheet. Here is her tally for the pupils who walk.
Walk 𝍸 𝍸 ||
Mia writes down a frequency of 3 for Walk.
Explain the mistake Mia has made and write down the correct frequency. (2)

c. Give one reason why a tally chart is a better way to record the answers than writing a list of every answer. (1)

(5 marks)

a)

Add a tally column

Add more rows, such as Cycle and Other

b)

She counted the groups, not the tally marks

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Each crossed group is 5

$5 + 5 + 2 = 12$

The frequency is 12

c)

The marks are in groups of 5

so the totals are quick and easy to count

a) tally column, more rows b) 12 c) quick to count

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