

FREQUENCY TABLES – PRACTICE QUESTIONS
CALCULATOR ALLOWED



metatutor

1.

Andrea went to a car park and counted the colours of each of the cars. The results are shown in the below frequency table.

Colour	Frequency
White	12
Black	7
Red	6
Blue	4
Yellow	1

(a) How many cars were white?

(b) How many cars were in the car park in total?

(c) If Andrea chose a car at random from the car park, what would be the probability that it was black?

2.

Ben asked everybody in his class how many pets they have. He represented the results in a frequency table.

Number of pets	Frequency
0	6
1	3
2	7
3	4
4	4
5	1

(a) What fraction of the class have at least one pet?

(b) What is the mode?

(c) What is the median?

(d) What is the mean number of pets that the class have?

3.

Eleanor asked 35 people how many different houses they have lived in. She represented the results in a frequency table.

Number of houses	Frequency
1	6
2	10
3	8
4	5
5	4
6	2

(a) What is the median?

(b) What is the mode?

(c) What is the mean?

4.

Florence ran in 40 100-metre races last year. Her times are summarised in the below frequency table.

Time (seconds)	Frequency
15	2
16	5
17	9
18	11
19	8
20	5

(a) What is the mode?

(b) What is the median?

(c) What is the mean?

5.
Corey bought 12 packets of crisps and noted down how many crisps were in each packet.
His results were:

18 20 20 16 19 15 15 21 18 20 17 20

(a) Complete the frequency table.

Number of crisps	Frequency
15	
16	
17	
18	
19	
20	
21	

(b) Work out the mean number of crisps in a packet.

6.
Dylan took 15 spelling tests.
Each test was out of 20.
His results were:

18 16 17 18 13 15 20 20 20 20 16 14 18 20 15

(a) Complete the frequency table.

Score	Frequency
13	
14	
15	
16	
17	
18	
19	
20	

(b) Work out Dylan's mean score.

7.

The below frequency table shows the weights, in kilograms, of a group of people.

Weight (kg)	Frequency		
$20 < x \leq 30$	1		
$30 < x \leq 40$	3		
$40 < x \leq 50$	5		
$50 < x \leq 60$	3		
$60 < x \leq 70$	3		

(a) What is the modal class?

(b) Which class contains the median weight?

(c) Estimate the mean weight.

8.

The below frequency table shows the marks, out of 100, that a group of students scored in a maths test.

Mark	Frequency		
$0 < x \leq 20$	2		
$20 < x \leq 40$	7		
$40 < x \leq 60$	6		
$60 < x \leq 80$	4		
$80 < x \leq 100$	1		

(a) What is the modal class?

(b) Which class contains the median mark?

(c) Estimate the mean mark.

(d) Explain why your answer to part (c) is an estimate.

9.

The below frequency table shows the number of apples harvested from 60 apple trees.

Apples harvested	Frequency
$0 < x \leq 40$	9
$40 < x \leq 80$	10
$80 < x \leq 120$	20
$120 < x \leq 160$	16
$160 < x \leq 240$	5

(a) How many apple trees harvested more than 80 apples?

(b) Which class contains the median?

(c) What is the modal class?

(d) Estimate the mean number of apples harvested by an apple tree.

10.

The below frequency table shows the prices of 100 used cars.

Price (£)	Frequency
$1,000 < x \leq 2,000$	32
$2,000 < x \leq 3,000$	25
$3,000 < x \leq 4,000$	18
$4,000 < x \leq 10,000$	14
$10,000 < x \leq 20,000$	11

(a) What is the modal class?

(b) Which class contains the median?

(c) Estimate the mean price of a used car.

(d) Explain why your answer to part (c) is an estimate.

11.

The salaries of the employees at a business are represented in the frequency table below:

Salary (£)	Frequency
$14,000 < x \leq 16,000$	8
$16,000 < x \leq 18,000$	7
$18,000 < x \leq 20,000$	4
$20,000 < x \leq 30,000$	4
$30,000 < x \leq 40,000$	2

(a) How many employees work for the business?

(b) What is the modal class?

(c) Which class contains the median salary?

(d) Estimate the mean salary.

12.

150 people solved a puzzle.

The times taken are represented in the frequency table below.

Time taken (minutes)	Frequency
$10 < x \leq 20$	12
$20 < x \leq 25$	26
$25 < x \leq 30$	27
$30 < x \leq 40$	48
$40 < x \leq 60$	37

(a) How many people took more than half an hour to solve the puzzle?

(b) Oliver took 34 minutes to solve the puzzle.

He says "I solved the puzzle quicker than the average person".

Do you agree with Oliver? Show your working.

13.
The ages of the members of a youth club are represented in the frequency table below.

Age	Frequency
9	5
10	12
11	9
12	13
13	6
14	4

- (a) How many members are there at the youth club?
- (b) How many members of the youth club are 12 or older?
- (c) What is the mode?
- (d) What is the median?

14.
The number of runs scored by a cricket team during a season is represented in the frequency table below.

Number of runs	Frequency
$0 < x \leq 100$	16
$100 < x \leq 300$	11
$300 < x \leq 500$	6
$500 < x \leq 1,000$	8
$1,000 < x \leq 2,000$	3

- (a) What fraction of the team scored more than 500 runs during the season?
Give your answer in its simplest form.
- (b) Which class contains the median?
- (c) Estimate the mean number of runs scored. Give your answer to the nearest run.
- (d) Explain why your answer to part (c) is an estimate.

15.
The frequency table below shows the number of goals scored by a football team in their last 20 games.

Number of goals	Frequency
0	5
1	8
2	3
3	2
4	1
5	1

(a) Work out the total number of goals the team scored in their last 20 games.

(b) Work out the mean number of goals the team scored in their last 20 games.

16.
The value, in pounds, of the items at a shop are shown in the below frequency table.

Price (£)	Frequency
$0 < x \leq 5$	18
$5 < x \leq 10$	15
$10 < x \leq 20$	10
$20 < x \leq 50$	2
$50 < x \leq 100$	1

(a) What is the modal class?

(b) Which class contains the median?

(c) Estimate the total value of the items.

(d) Darren says “The range of the values of the items in the shop is £40”.
Explain why Darren is wrong.