



ACHIEVE ACADEMY

GCSE Maths — Higher Tier

Averages & Range · Practice Booklet

NAME: _____

CLASS: _____

DATE: _____

☐ Developing

☒ Secure

☐ Greater Depth

Answer every question in the working space provided. Method marks are available for correct working even if the final answer is wrong. Check the time allowed with your tutor before you start.

Averages & Range

Total marks available: 98

● Averages & Range

Q1

[3 marks]

The table shows information about the shoe sizes of 33 customers. Find the median shoe size.

Shoe size	Frequency
3	8
4	3
5	6
6	9
7	4
8	3

Q2

[3 marks]

The table shows information about the shoe sizes of 37 customers. Find the median shoe size.

Shoe size	Frequency
3	8
4	3
5	9
6	6
7	5
8	6

Q3

[3 marks]

The table shows information about the shoe sizes of 35 customers. Find the median shoe size.

Shoe size	Frequency
3	2
4	8
5	4
6	9
7	3
8	9

Q4

[3 marks]

The table shows information about the shoe sizes of 28 customers. Find the median shoe size.

Shoe size	Frequency
3	6
4	7
5	4
6	5
7	4
8	2

Q5

[3 marks]

The table shows information about the number of goals scored this season for 47 players. Work out the mean number of goals scored this season. Give your answer correct to 1 decimal place.

Number of goals scored this season	Frequency
0	5
1	7
2	8
3	3
4	15
5	9

Q6

[3 marks]

The table shows information about the shoe sizes of 41 customers. Find the median shoe size.

Shoe size	Frequency
3	4
4	8
5	9
6	8
7	9
8	3

Q7

[3 marks]

The table shows information about the shoe sizes of 33 customers. Find the median shoe size.

Shoe size	Frequency
3	8
4	3
5	4
6	8
7	7
8	3

Q8

[3 marks]

The table shows information about the shoe sizes of 31 customers. Find the median shoe size.

Shoe size	Frequency
3	8
4	5
5	3
6	3
7	5
8	7

Q9

[3 marks]

The table shows information about the shoe sizes of 38 customers. Find the median shoe size.

Shoe size	Frequency
3	9
4	6
5	9
6	8
7	2
8	4

Q10

[3 marks]

The table shows information about the shoe sizes of 40 customers. Find the median shoe size.

Shoe size	Frequency
3	9
4	7
5	5
6	9
7	2
8	8

Q11

[4 marks]

The table shows information about the number of pets for a group of students. The mean number of pets is 5. Work out the value of f .

Number of pets	Frequency
1	15
6	f
9	1

Q12

[4 marks]

The table shows information about the time, t minutes, that 36 students spent on homework. Work out an estimate for the mean time. Give your answer correct to 1 decimal place.

Time (t minutes)	Frequency
$0 \leq t < 10$	13
$10 \leq t < 20$	10
$20 \leq t < 30$	3
$30 \leq t < 40$	10

Q13

[4 marks]

The table shows information about the number of goals scored this season for a group of players. The mean number of goals scored this season is 6. Work out the value of f .

Number of goals scored this season	Frequency
1	10
7	f
10	5

Q14

[4 marks]

The table shows information about the number of siblings for a group of students. The mean number of siblings is 5. Work out the value of f .

Number of siblings	Frequency
1	11
6	f
9	4

Q15

[4 marks]

The table shows information about the number of siblings for a group of students. The mean number of siblings is 6. Work out the value of f .

Number of siblings	Frequency
1	8
7	f
10	4

Q16

[4 marks]

The table shows information about the time, t minutes, that 47 students spent on homework. Work out an estimate for the mean time. Give your answer correct to 1 decimal place.

Time (t minutes)	Frequency
$0 \leq t < 10$	12
$10 \leq t < 20$	9
$20 \leq t < 30$	14
$30 \leq t < 40$	12

Q17

[4 marks]

The table shows information about the number of text messages sent yesterday for a group of students. The mean number of text messages sent yesterday is 5. Work out the value of f .

Number of text messages sent yesterday	Frequency
1	13
6	f
9	2

Q18

[4 marks]

The table shows information about the time, t minutes, that 38 students spent on homework. Work out an estimate for the mean time. Give your answer correct to 1 decimal place.

Time (t minutes)	Frequency
$0 \leq t < 10$	12
$10 \leq t < 20$	12
$20 \leq t < 30$	11
$30 \leq t < 40$	3

Q19

[4 marks]

The table shows information about the time, t minutes, that 17 students spent on homework. Work out an estimate for the mean time. Give your answer correct to 1 decimal place.

Time (t minutes)	Frequency
$0 \leq t < 10$	7
$10 \leq t < 20$	4
$20 \leq t < 30$	3
$30 \leq t < 40$	3

Q20

[4 marks]

The table shows information about the number of siblings for a group of students. The mean number of siblings is 4. Work out the value of f .

Number of siblings	Frequency
1	12
5	f
8	1

Q21

[1 mark]

The table shows information about the time, t minutes, some students spent revising. Write down the modal class.

Time (t minutes)	Frequency
$0 \leq t < 10$	14
$10 \leq t < 20$	6
$20 \leq t < 30$	9
$30 \leq t < 40$	4
$40 \leq t < 50$	9

Q22

[4 marks]

Class A has 16 students with a mean test score of 80. Class B has 16 students with a mean test score of 65. Find the combined mean score of both classes, correct to 1 decimal place.

Q23

[1 mark]

The table shows information about the time, t minutes, some students spent revising. Write down the modal class.

Time (t minutes)	Frequency
$0 \leq t < 10$	9
$10 \leq t < 20$	11
$20 \leq t < 30$	4
$30 \leq t < 40$	9
$40 \leq t < 50$	3

Q24

[4 marks]

Class A has 32 students with a mean test score of 55. Class B has 16 students with a mean test score of 66. Find the combined mean score of both classes, correct to 1 decimal place.

Q25

[4 marks]

Class A has 15 students with a mean test score of 72. Class B has 18 students with a mean test score of 55. Find the combined mean score of both classes, correct to 1 decimal place.

Q26

[4 marks]

Class A has 30 students with a mean test score of 58. Class B has 27 students with a mean test score of 81. Find the combined mean score of both classes, correct to 1 decimal place.

Q27

[4 marks]

Class A has 20 students with a mean test score of 54. Class B has 15 students with a mean test score of 82. Find the combined mean score of both classes, correct to 1 decimal place.

Q28

[4 marks]

Class A has 31 students with a mean test score of 75. Class B has 32 students with a mean test score of 83. Find the combined mean score of both classes, correct to 1 decimal place.

Q29

[1 mark]

The table shows information about the time, t minutes, some students spent revising. Write down the modal class.

Time (t minutes)	Frequency
$0 \leq t < 10$	3
$10 \leq t < 20$	6
$20 \leq t < 30$	10
$30 \leq t < 40$	3

Q30

[1 mark]

The table shows information about the time, t minutes, some students spent revising. Write down the modal class.

Time (t minutes)	Frequency
$0 \leq t < 10$	10
$10 \leq t < 20$	7
$20 \leq t < 30$	5
$30 \leq t < 40$	14
$40 \leq t < 50$	9