Name:

Exam Style Questions

Frequency Polygons

Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

www.corbettmaths.com/contents

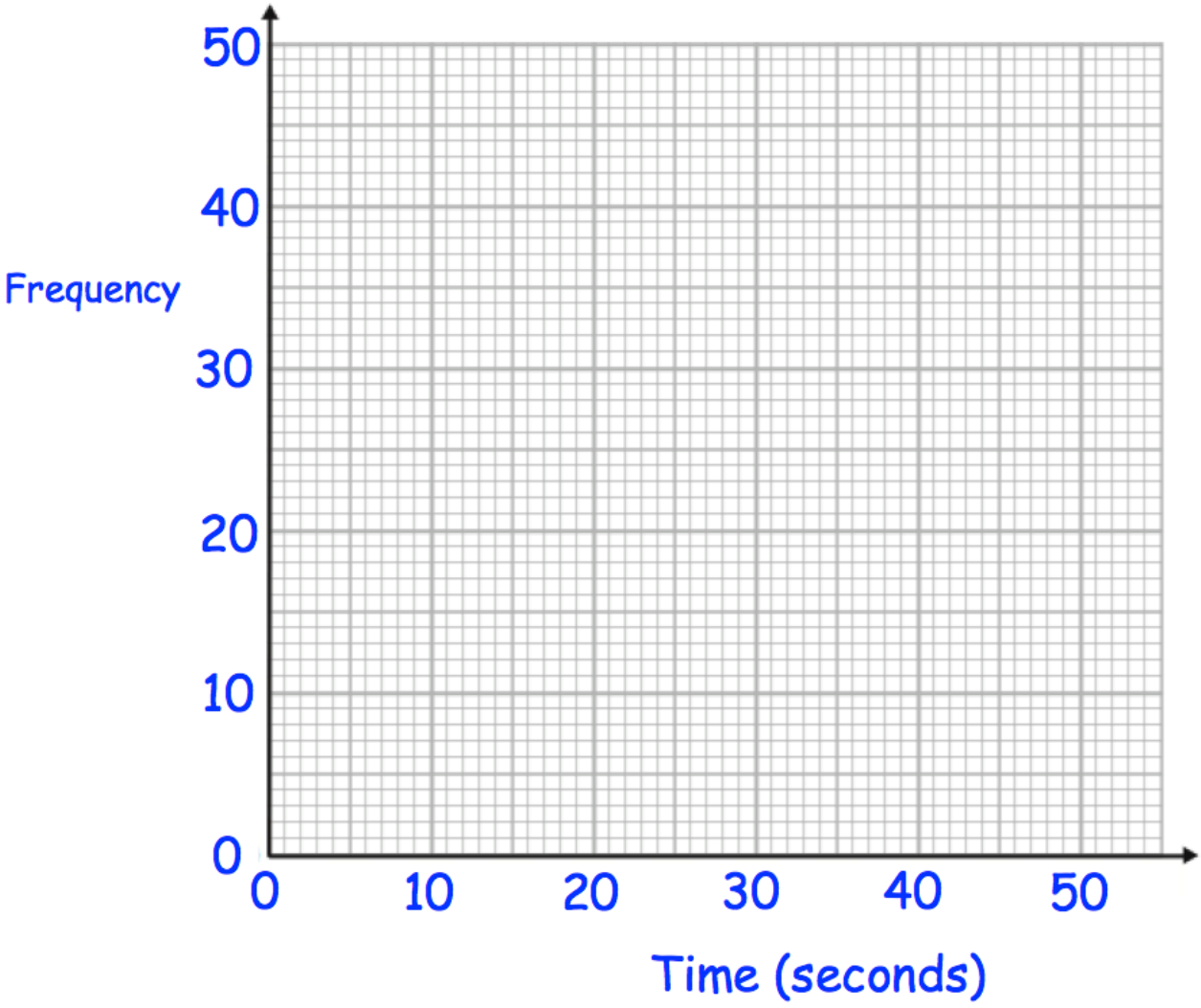
Video 155

Video 156

1. The table gives information about the time taken, in seconds, for students to complete a puzzle.

Time (seconds)	Frequency
$0 < t \leq 10$	7
$10 < t \leq 20$	25
$20 < t \leq 30$	38
$30 < t \leq 40$	16
$40 < t \leq 50$	12

Draw a frequency polygon for the information in the table.

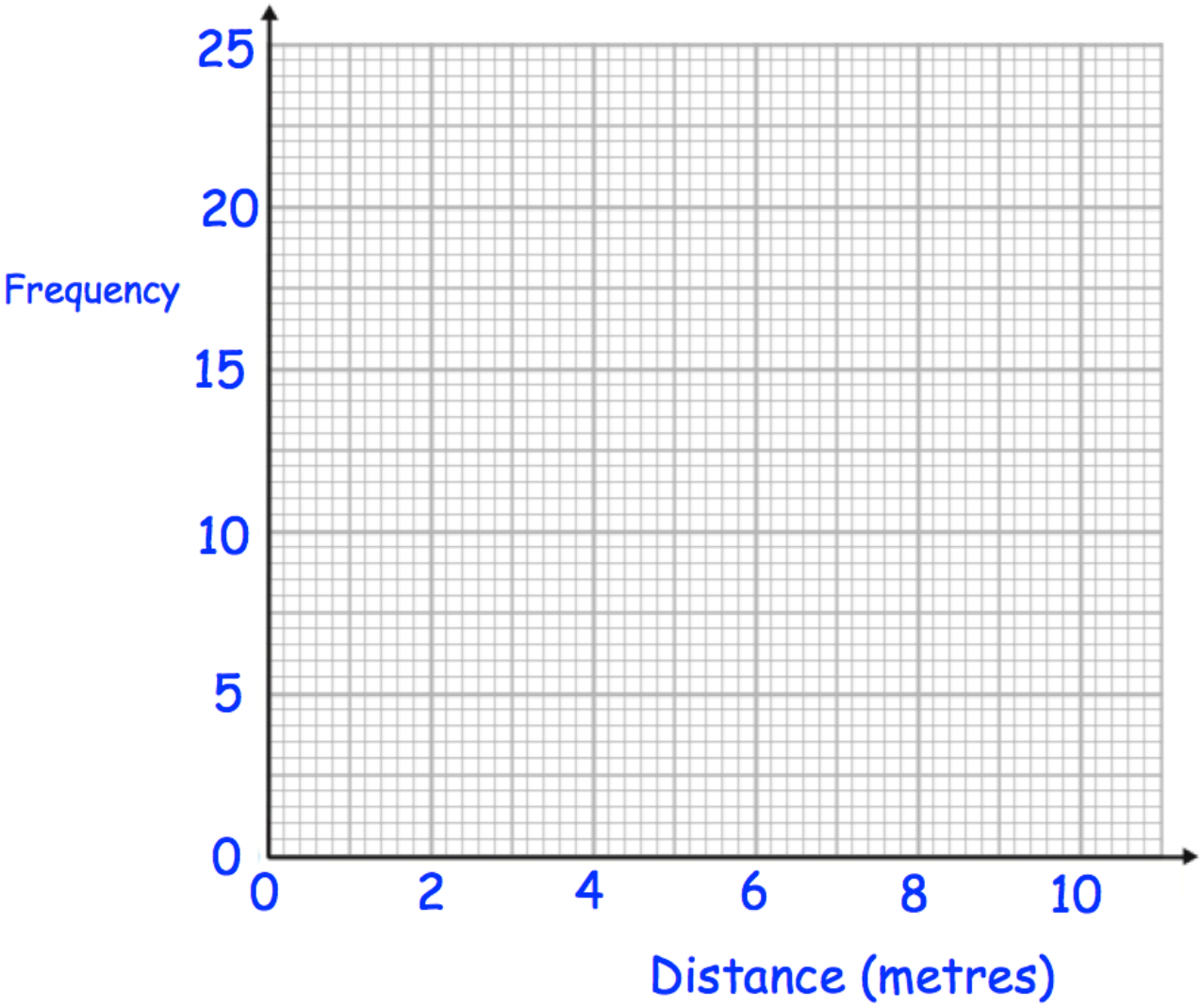


(2)

2. The table gives information about the distances thrown, in metres, at a school sports day.

Time (seconds)	Frequency
$0 < d \leq 2$	5
$2 < d \leq 4$	10
$4 < d \leq 6$	21
$6 < d \leq 8$	18
$8 < d \leq 10$	1

Draw a frequency polygon for the information in the table.

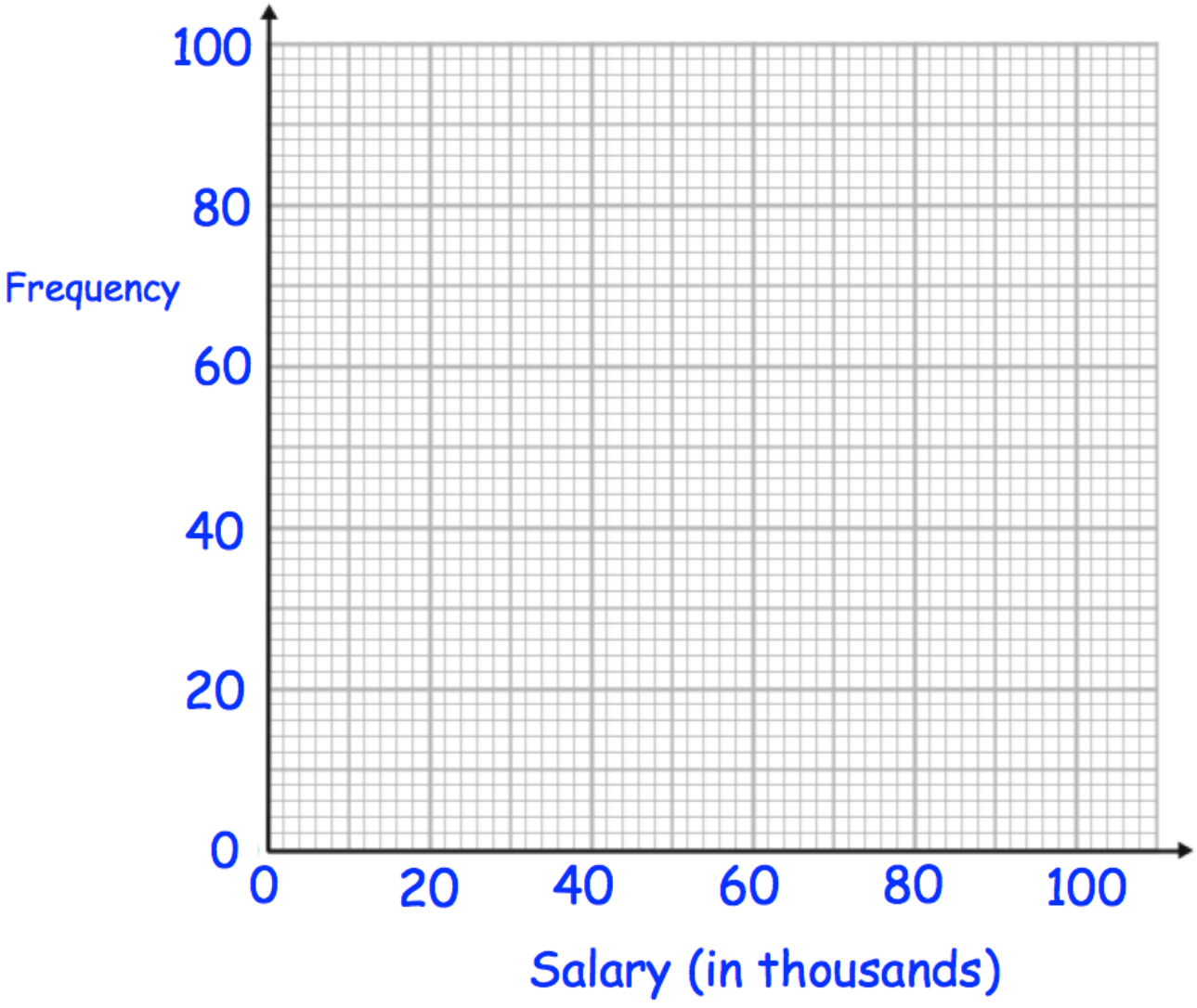


(2)

3. The table gives information about the income of 200 households in a village.

Income (thousands)	Frequency
$0 < I \leq 20$	40
$20 < I \leq 40$	75
$40 < I \leq 60$	64
$60 < I \leq 80$	20
$80 < I \leq 100$	1

Draw a frequency polygon for the information in the table.

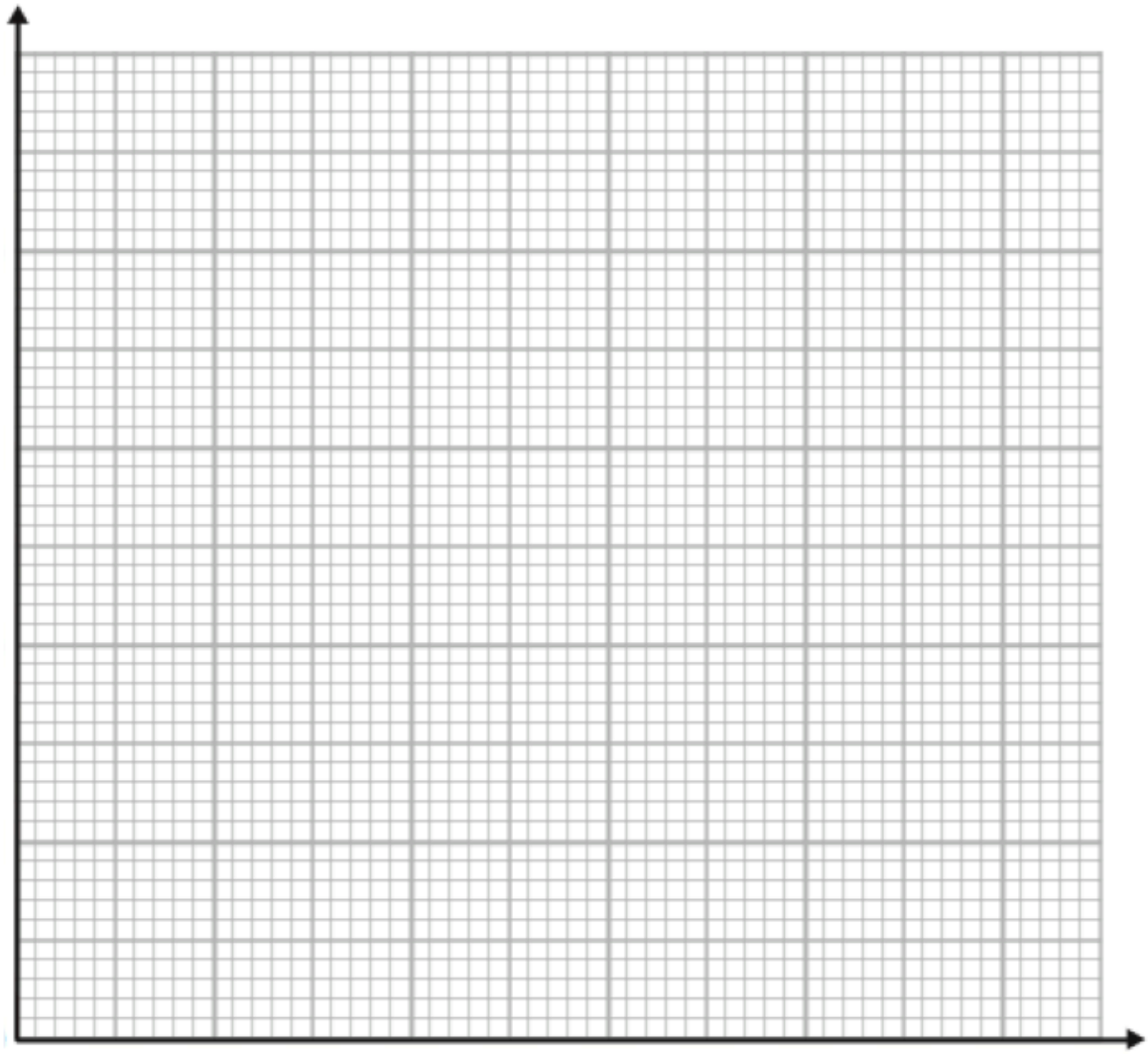


(2)

4. The table shows information about the time taken for teachers to travel to work.

Time (minutes)	Frequency
$0 < t \leq 10$	10
$10 < t \leq 20$	28
$20 < t \leq 30$	46
$30 < t \leq 40$	23
$40 < t \leq 50$	12

Draw a frequency polygon for the information in the table.

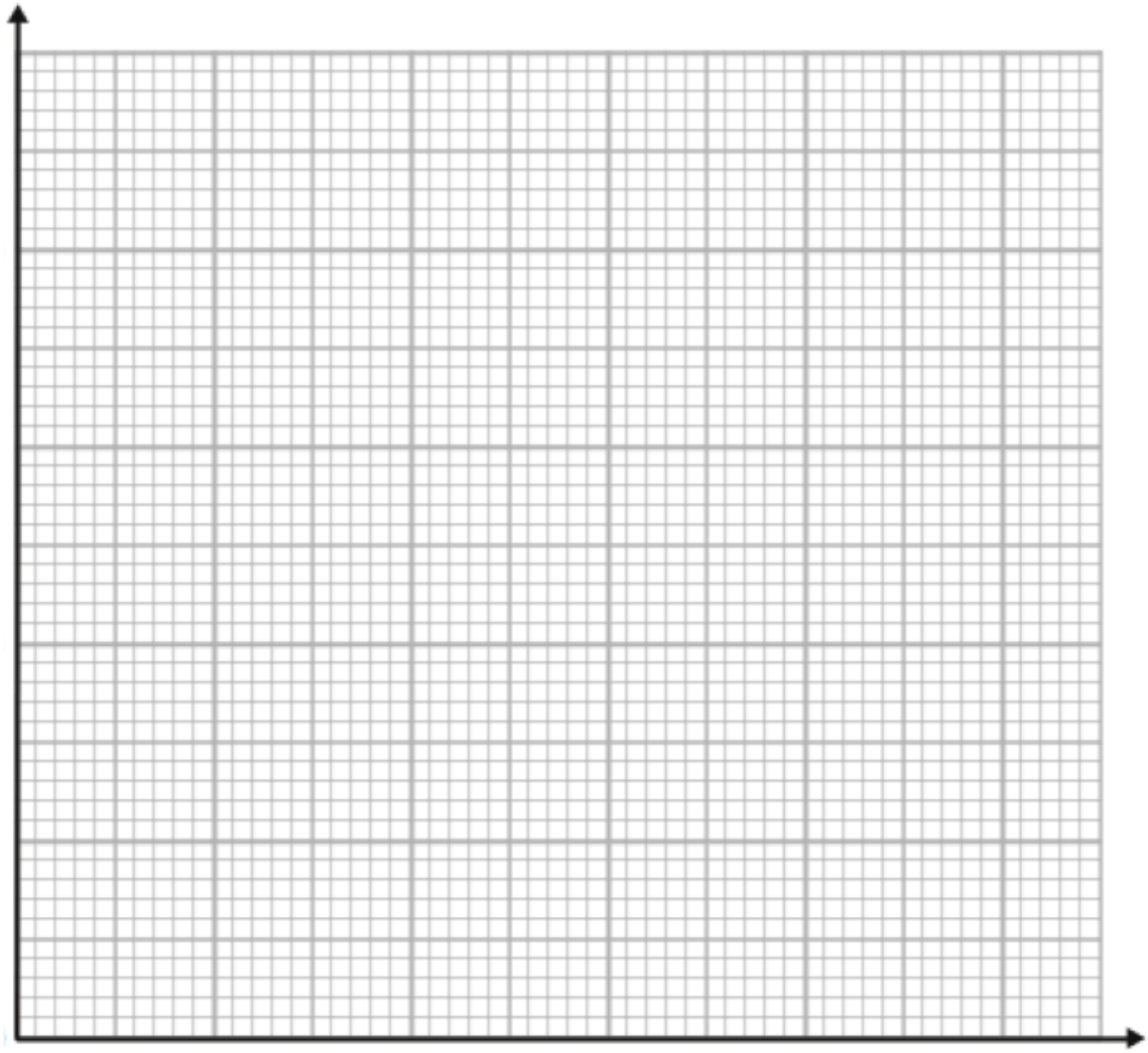


(4)

5. The table shows information about the lengths of 60 spiders.

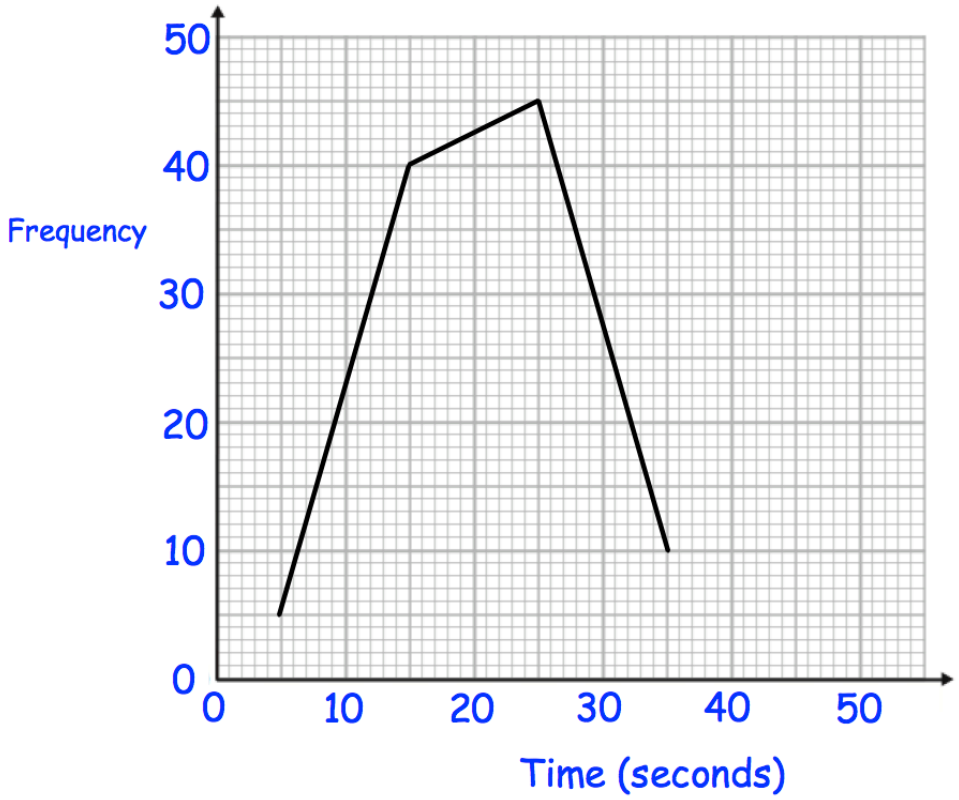
Lengths (cm)	Frequency
$0 < L \leq 0.5$	8
$0.5 < L \leq 1$	17
$1 < L \leq 1.5$	20
$1.5 < L \leq 2$	10
$2 < L \leq 2.5$	5

Draw a frequency polygon for the information in the table.



(4)

6. The frequency polygon shows the time taken for 100 boys to solve a maths question.



The table shows the times taken by 100 girls to answer the same question.

Time (seconds)	Frequency
$0 < t \leq 10$	2
$10 < t \leq 20$	33
$20 < t \leq 30$	42
$30 < t \leq 40$	14
$40 < t \leq 50$	9

(a) Draw a frequency polygon to show this information on the diagram above.

(2)

(b) Compare the times taken by the 100 girls and 100 boys.

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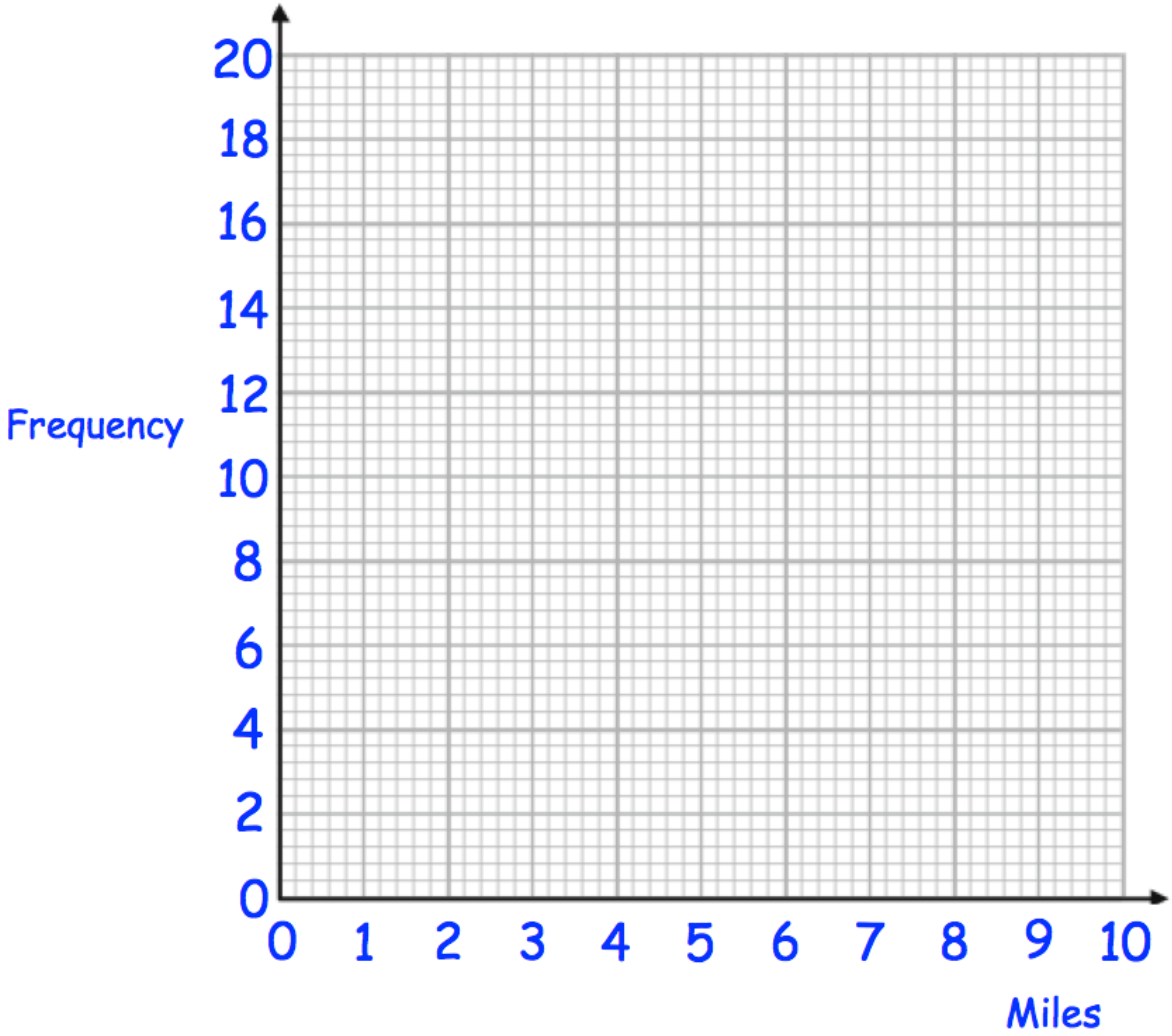
(2)

7. The table shows the distance travelled to school by 50 students.

Distance (miles)	Frequency
$0 < d \leq 2$	22
$2 < d \leq 4$	10
$4 < d \leq 6$	11
$6 < d \leq 8$	4
$8 < d \leq 10$	3

(a) Draw a frequency polygon to represent this data.

(2)



One student is chosen at random.

(b) Work out the probability that this student travels more than 6 miles to school.

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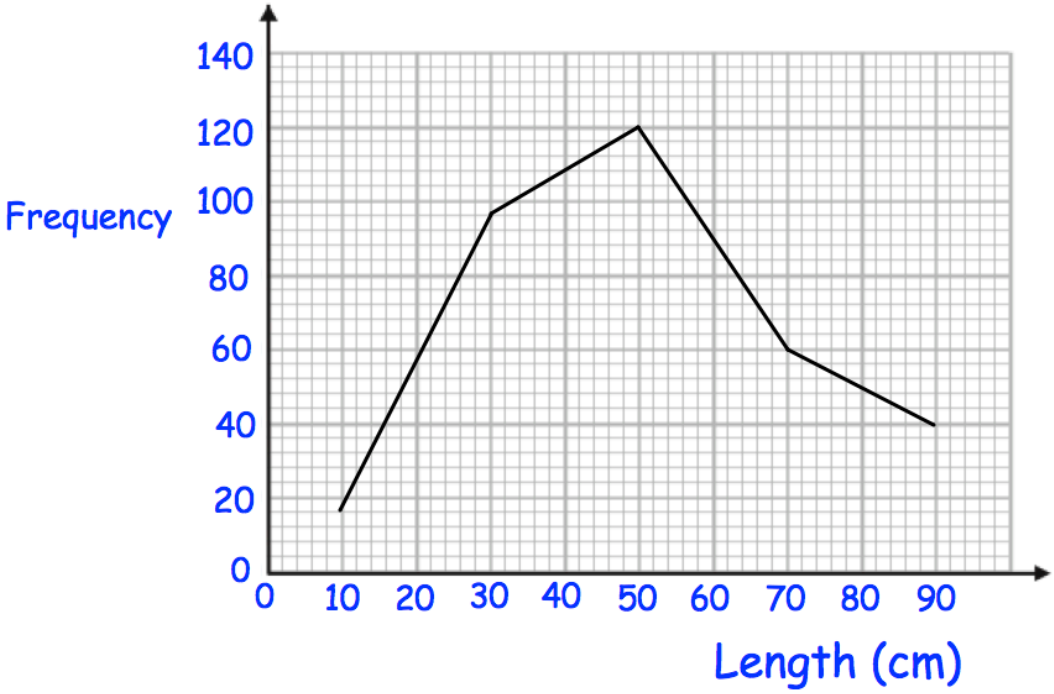
(1)

8. The frequency polygon shows the length of 330 river eels.



The table shows the lengths of 330 sea eels.

Length (cm)	Frequency
$0 < t \leq 20$	12
$20 < t \leq 40$	60
$40 < t \leq 60$	108
$60 < t \leq 80$	90
$80 < t \leq 100$	60

(a) Draw a frequency polygon to show this information on the diagram above.

(2)

(b) Calculate an estimate of the mean length of a sea eel.

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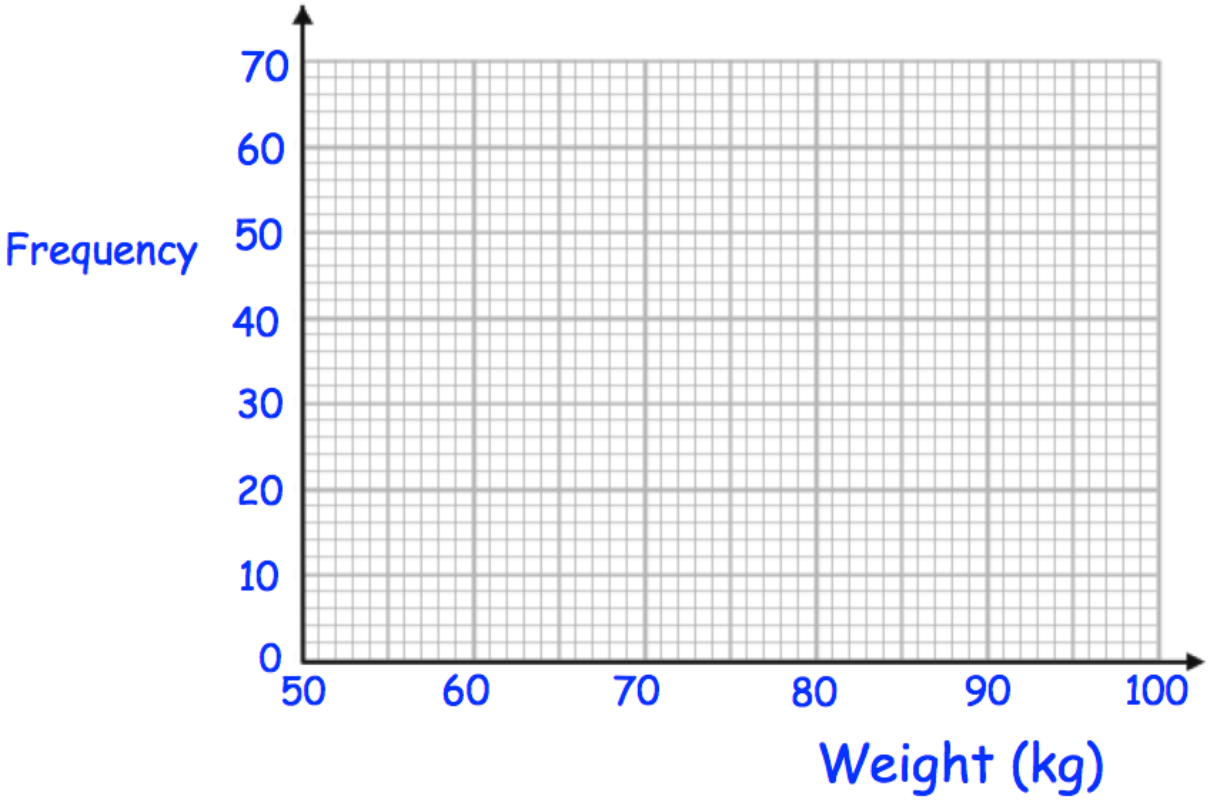
(3)

9. The frequency table gives information about the weight of some rugby players.

Weight (kg)	Frequency
$50 < w \leq 60$	14
$60 < w \leq 70$	22
$70 < w \leq 80$	50
$80 < w \leq 90$	64
$90 < w \leq 100$	20

(a) Draw a frequency polygon to represent this data.

(2)



(b) Write down the modal class interval.

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(1)

One player is chosen at random.

(c) Work out the probability that this player is more than 90kg.

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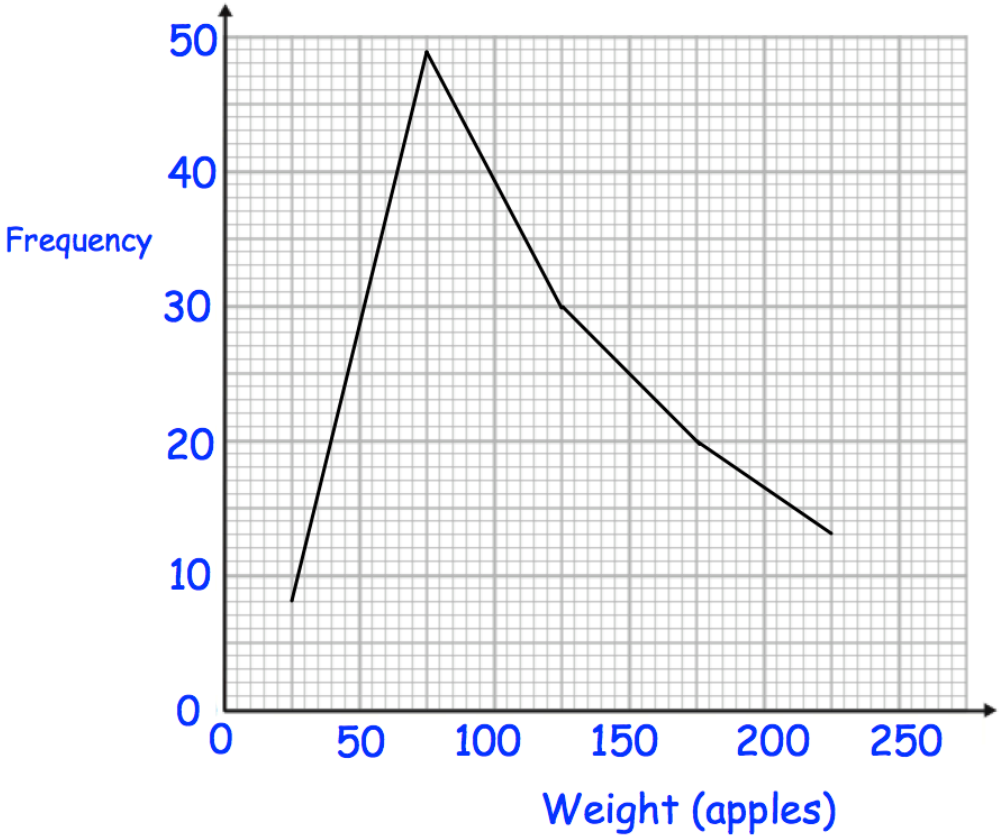
(1)

10. The frequency polygon shows the weights of 120 red apples.



The table shows the weights of 120 green apples.

Weight (kg)	Frequency
$0 < w \leq 50$	4
$50 < w \leq 100$	12
$100 < w \leq 150$	40
$150 < w \leq 200$	48
$200 < w \leq 250$	16

(a) Draw a frequency polygon to show this information on the diagram above.

(2)

(b) Compare the two distributions.

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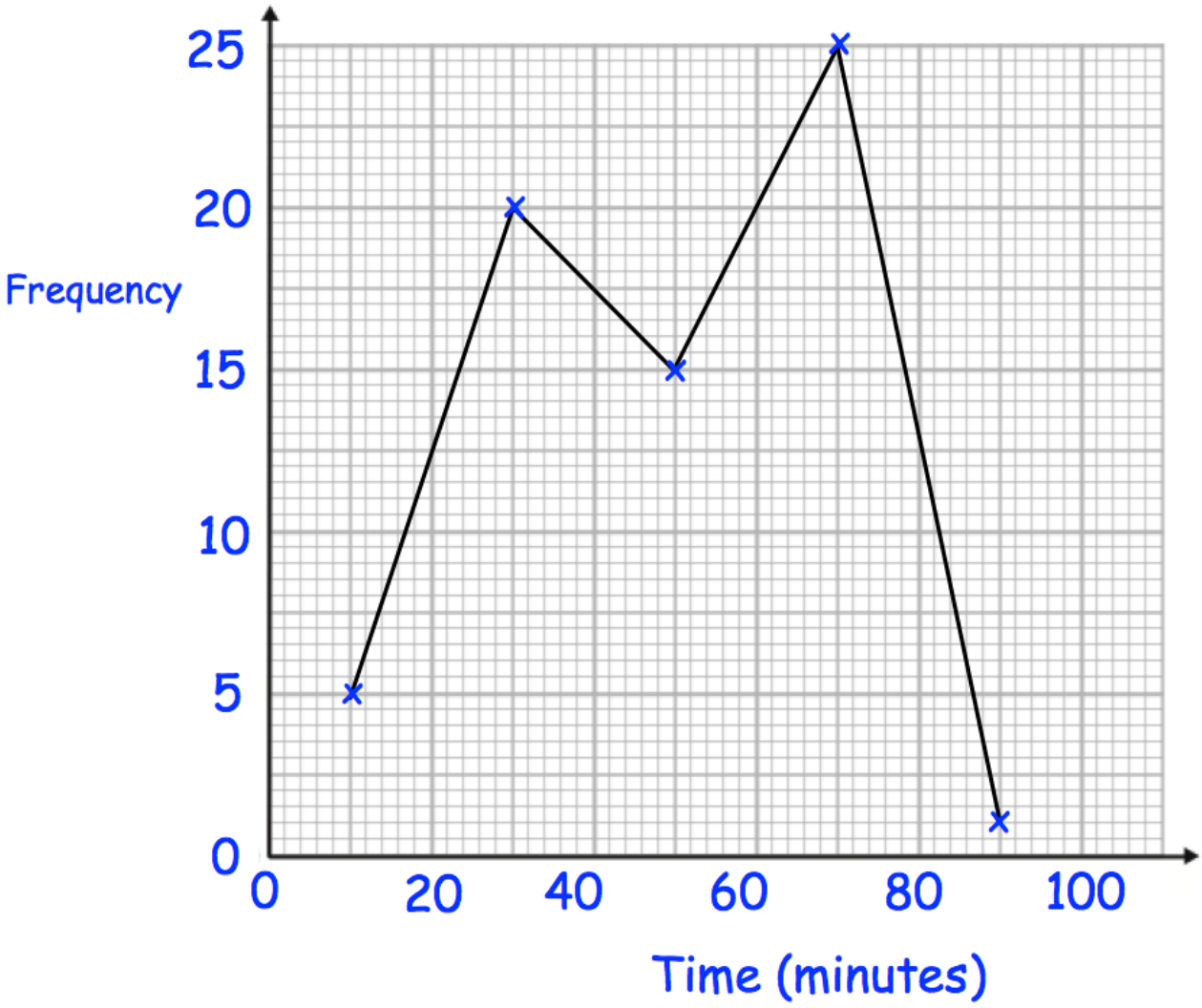
(2)

11. The frequency polygon shows information on how long people spend in a swimming pool.



Calculate an estimate of the mean time spent in the swimming pool.

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(3)