

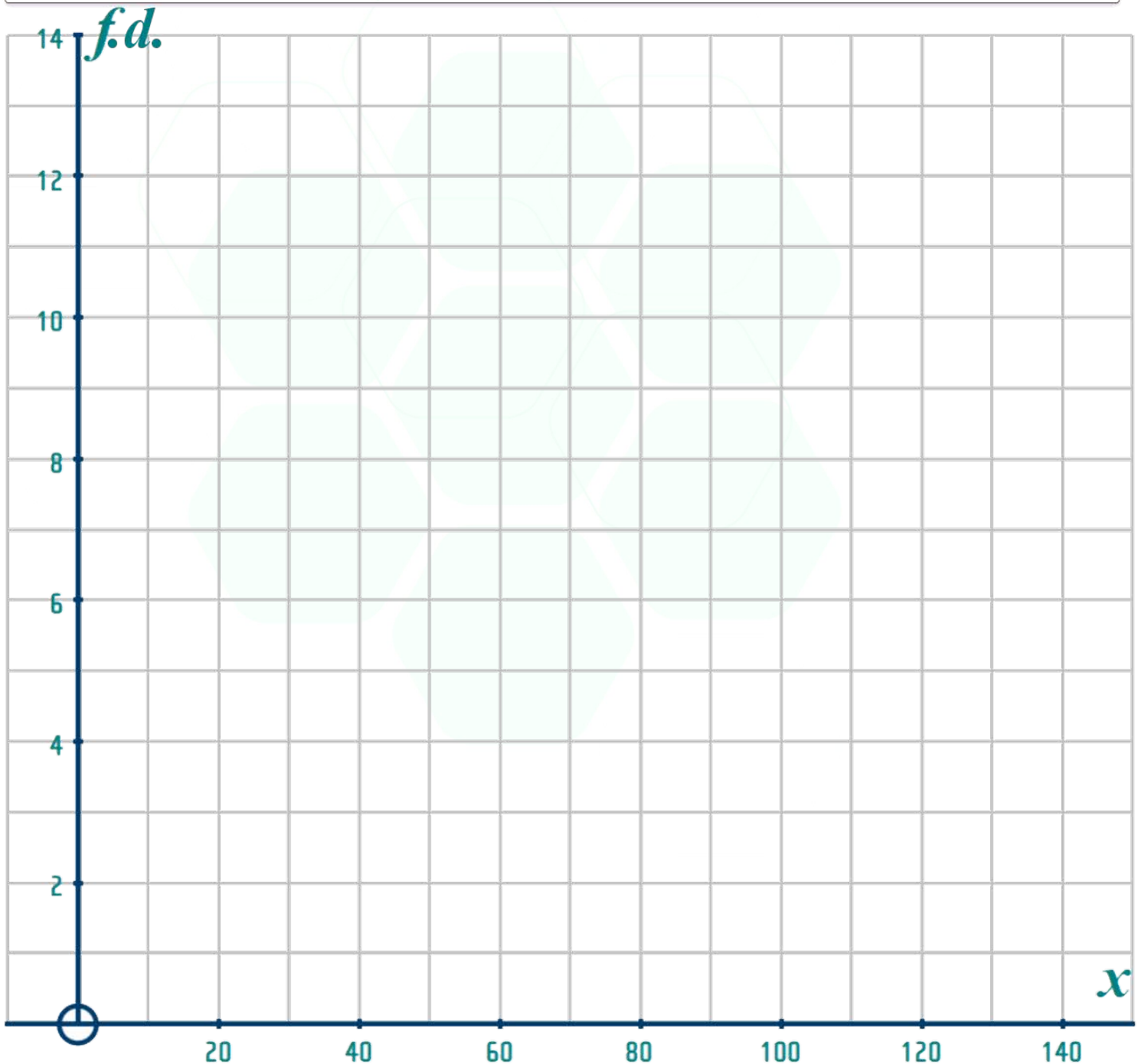
Question 1: Complete this table:

Weight	0 - 10	10 - 15	15 - 20	20 - 30	30 - 50	50 - 100
frequency	80	45	55	60	40	100
CLASS WIDTH	10	...	5	...	...	50
FREQUENCY DENSITY	8	9	...	...	...	2

Question 2: Using the grid provided, draw a histogram to illustrate the data in Question 1

b) Explain why the 50-100 class (which has the highest frequency) is NOT the modal-class

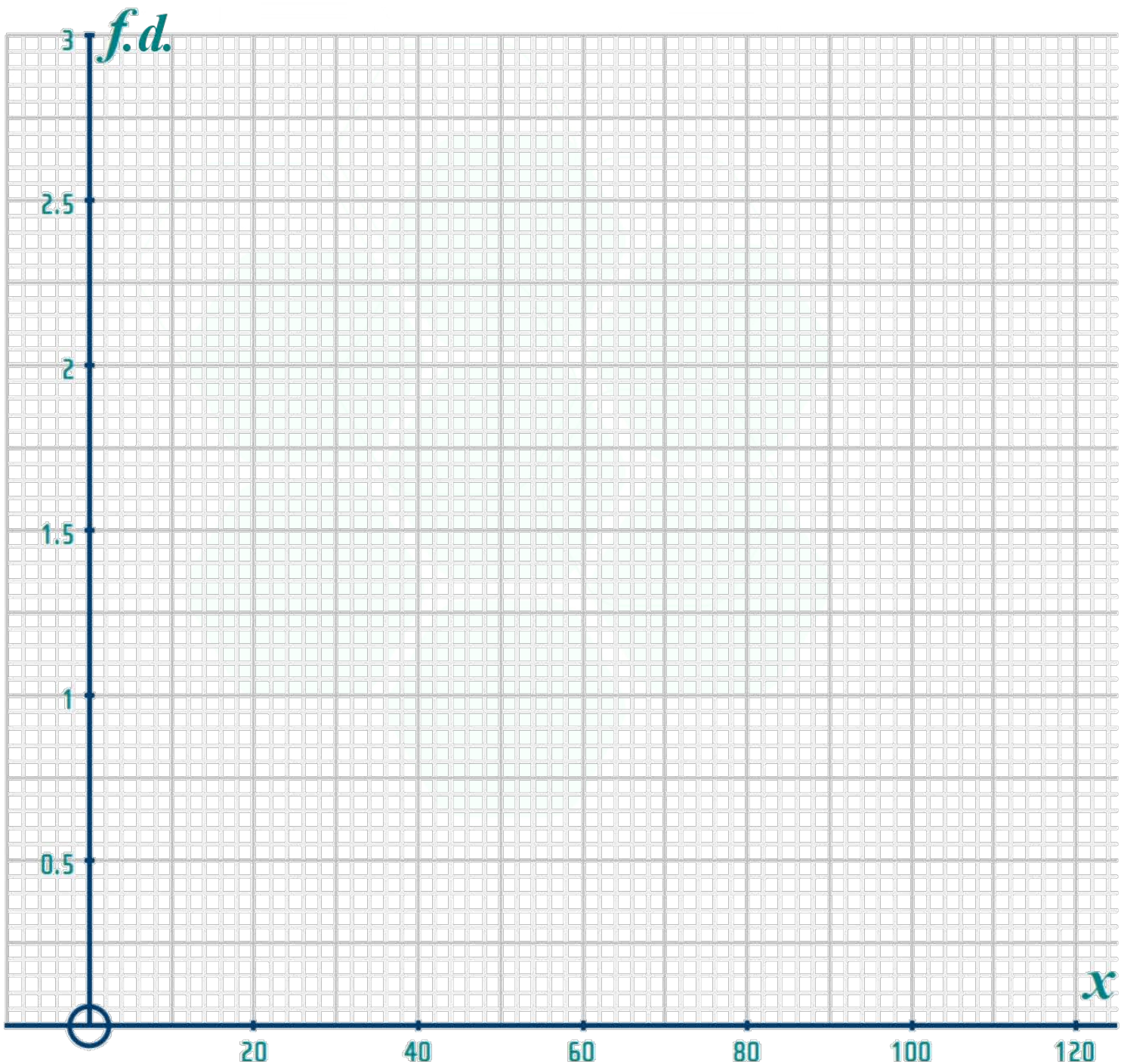
c) State the modal-class



Question 5: Convert your histogram from Question 1 to a frequency polygon

Question 3: Draw a histogram to illustrate this data. Then explain why the 60-100 class (which has the highest frequency) is NOT the modal class

Age	0 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 - 100
frequency	10	24	28	25	20	32



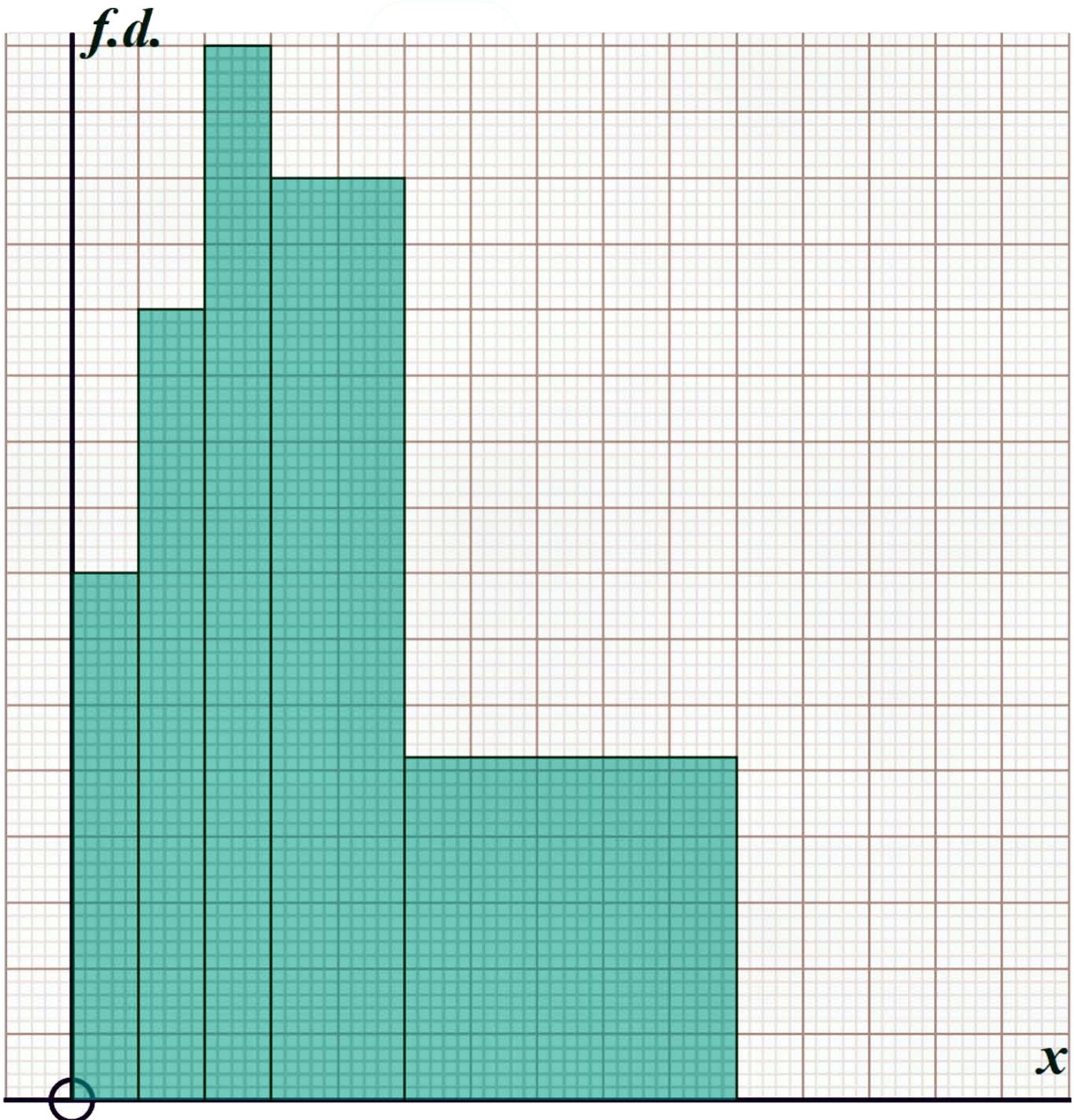
Question 6: Convert your histogram from Question 3 to a frequency polygon

Question 7: A teacher is complaining that most of his students live too far from the school... He asked all the Year-10 students at Nowhere Hill school were asked "how far do you travel to school". The results are shown in the histogram below:

By first scaling the x- and y-axes, complete the frequencies in the table below:


distance (km)	0-2	2-4	4-6	6-10	10-20	20+
frequency	56	...	0

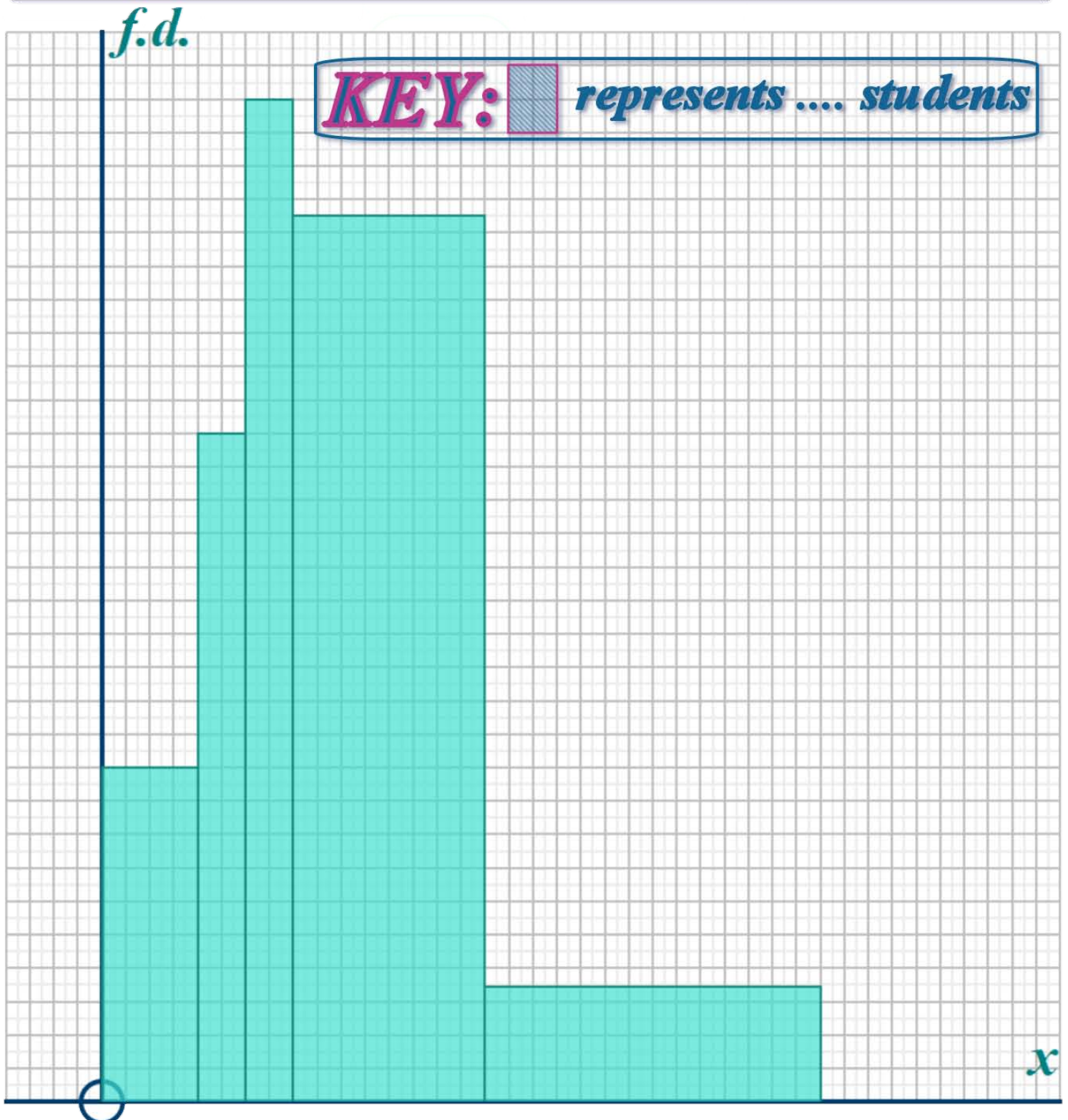
And work out what proportion of these Year-10 students live more than 2 km from school?



Question 8: Some students were asked to weigh their school bags and the results are summarised in the histogram below: The scales on both of the axes have been lost, but part of the frequency table remains:

mass (kg)	0-2	2-3	3-4	4-8	8-12
frequency	20	...	...	...	...

- Use the top row of the table to help you label the x-axis
- Work out the frequency represented by the blue-square  in the top right hand corner of the histogram
- Hence fill in the missing frequencies in the table



Question 9: A group of 120 teenagers were asked how many minutes they spent on the 'phone yesterday. The results are summarised in the histogram below:

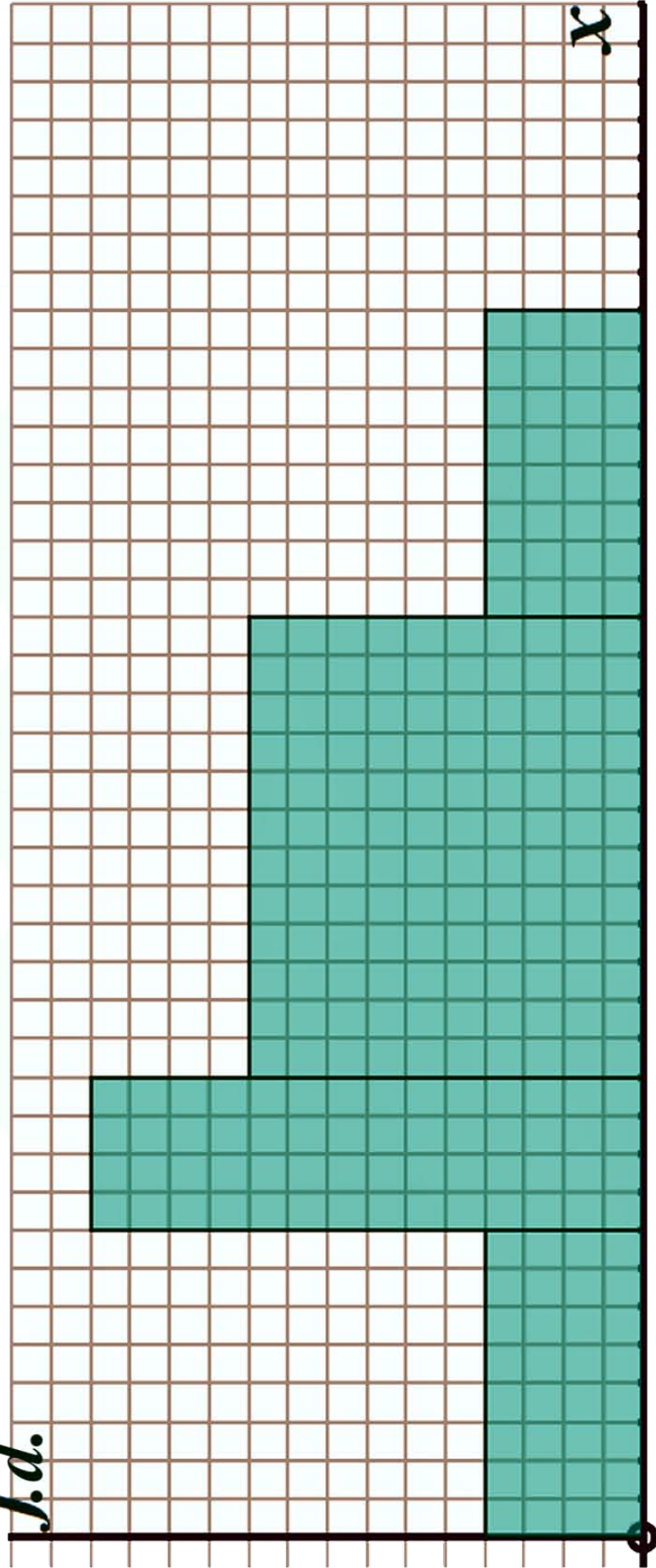
a) Using the table below, scale the x -axis of the histogram:

time (mins)	0-20	20-30	30-60	60-80
frequency

b) By working out the total number of 'small squares' that are contained by the bars of the histogram and equating this to the total frequency of 120 teenagers, work out the number of teenagers represented by 1 'small square'

c) Hence fill in all the frequencies in the table

f.d.



Question 10: In a study on hand-to-eye coordination, 100 Year 11 students were given this test:

A dot appears in a random position on either side of a screen. The dot moves quickly across the screen taking 5 seconds to reach the other side. You (i.e. the subject) have to aim a virtual-laser at the screen and move it until you hit the dot. The time it takes you to 'hit' the dot is recorded by the computer...

If a subject takes more than 5 seconds to hit the dot, then the computer assumes they are dead and NO TIME IS RECORDED for that subject - they are deleted from the records, and in real-life! 💡

Sadly, someone rubbed out all of the numbers on the histogram.

However, the researcher remembered that number of subjects in the $\frac{1}{4} \leq x < \frac{1}{2}$ class was a massive 21 less than the number in the $\frac{1}{2} \leq x < \frac{3}{4}$ class.

Out of the 100 students that took the test, how many had NO TIME RECORDED (i.e. took more than 5 seconds, so were assumed to be dead)?

