

Surname	
Other Names	
Candidate's Signature	

GCSE 9 - 1 Questions

Frequency Polygons

Calculator Not Allowed

INSTRUCTIONS TO CANDIDATES

Write your name in the space provided.

Write your answers in the spaces provided in this question paper.

Answer ALL questions.

Any working should be clearly shown in the spaces provided since marks may be awarded for partially correct solutions.

Total Marks :

1)

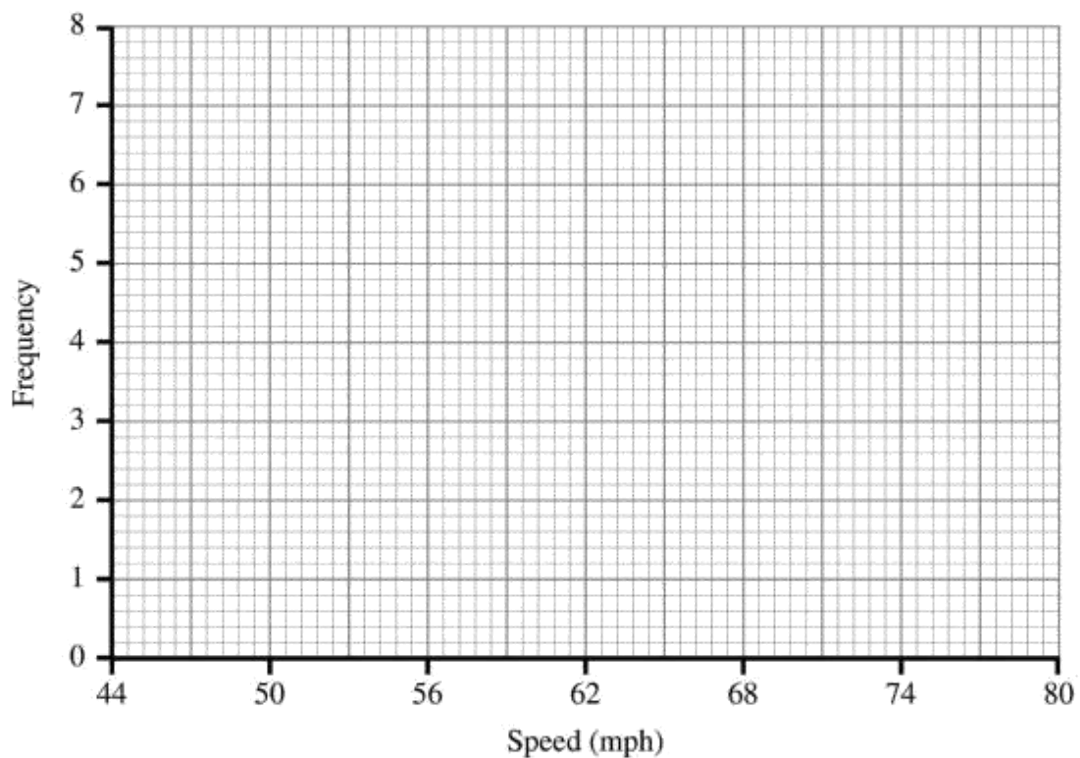
The PSNI recorded the speeds of a number of vehicles passing under a bridge on the M2 motorway during a 2 minute period one morning. The speeds recorded are in miles per hour (mph).

Speed x (mph)	Frequency f
$44 \leq x < 50$	3
$50 \leq x < 56$	7
$56 \leq x < 62$	8
$62 \leq x < 68$	6
$68 \leq x < 74$	5
$74 \leq x < 80$	1

(a) Which of the class intervals contains the median speed?

Answer _____ [1]

(b) On the graph paper draw a frequency polygon for the data. [2]



2)

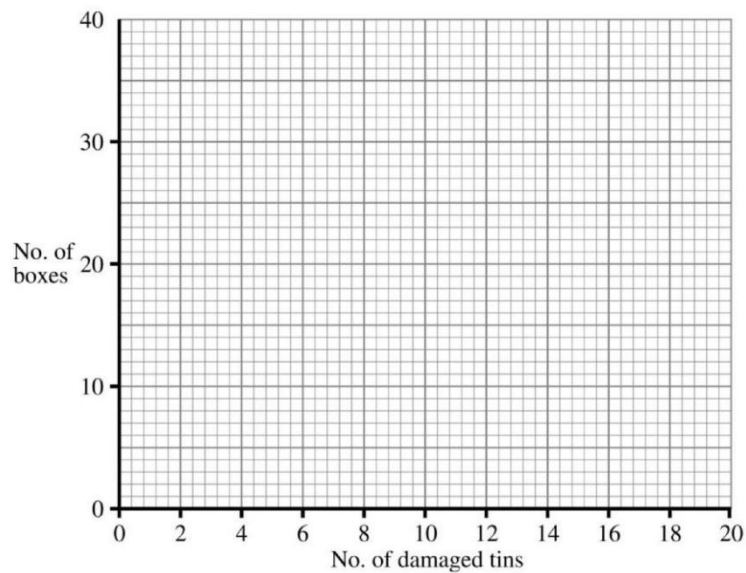
Tins of fruit come in boxes. A record is kept of the number of damaged tins in each box.

No. of damaged tins	No. of boxes
0–2	38
3–5	26
6–8	10
9–11	3
12–14	2
15–17	1
18–20	0

(a) Which class interval contains the median?

Answer _____ [1]

(b) Draw a frequency polygon for this data.



[2]

3)

100 drivers were asked how much they spent on petrol in one week.

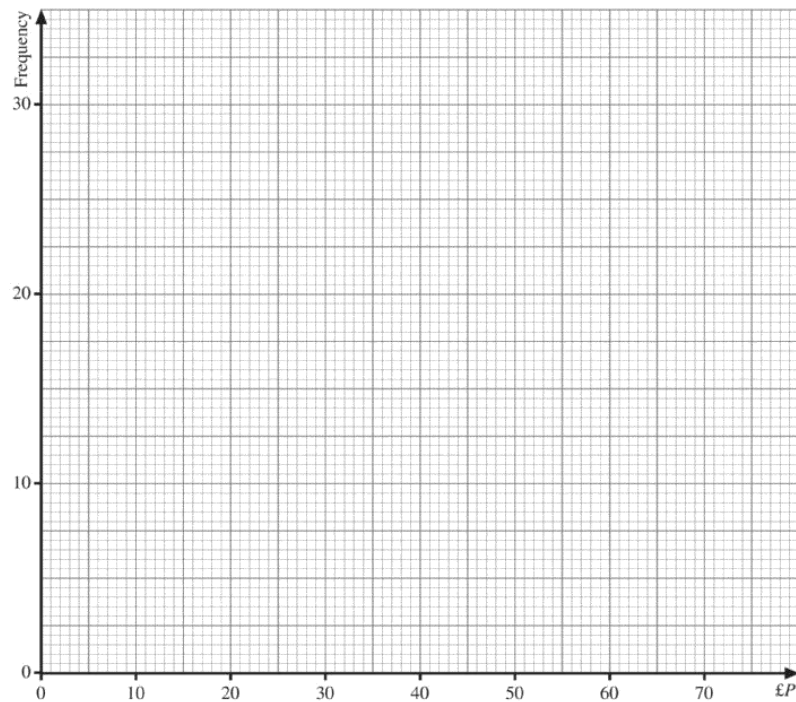
Amount spent, £ P	Frequency
$0 < P \leq 10$	8
$10 < P \leq 20$	20
$20 < P \leq 30$	25
$30 < P \leq 40$	32
$40 < P \leq 50$	10
$50 < P \leq 60$	5

(a) Which class interval contains the median?

Answer _____ [1]

(b) Draw a frequency polygon for the data.

[2]



4)

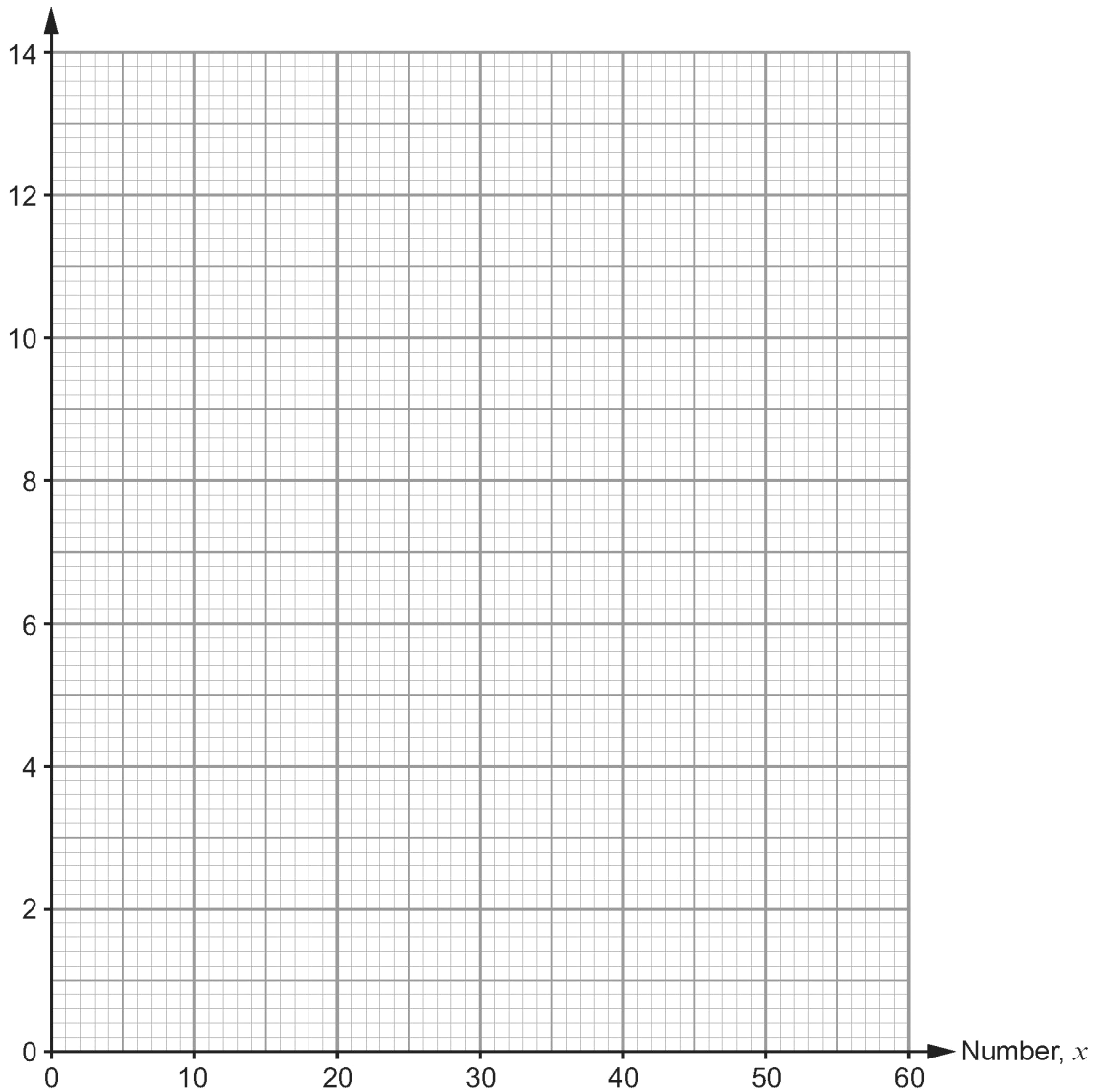
A list of 50 numbers has been summarised in the grouped frequency table below.

Number, x	Frequency
$0 \leq x < 10$	3
$10 \leq x < 20$	5
$20 \leq x < 30$	9
$30 \leq x < 40$	13
$40 \leq x < 50$	12
$50 \leq x < 60$	8

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

[2]

Frequency

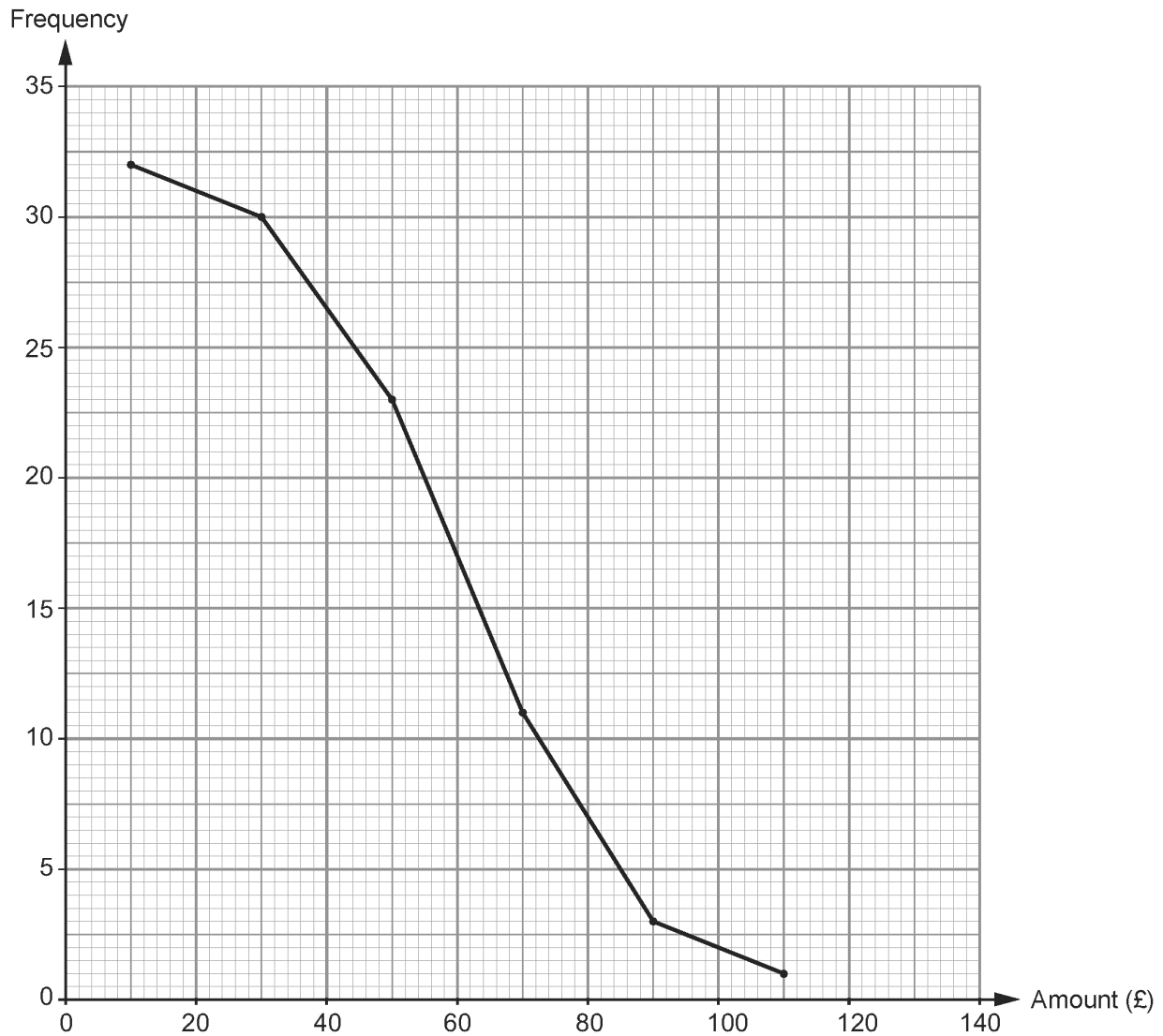


(b) Write down the group that contains the median.

[1]

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- 5) The frequency polygon below shows the amount of money that 100 customers spent in a supermarket on a Monday morning.



The amount of money that **another 100 customers** spent in the same supermarket on a **Saturday afternoon** is shown below.

Amount, s (£)	Frequency
$0 < s \leq 20$	5
$20 < s \leq 40$	19
$40 < s \leq 60$	34
$60 < s \leq 80$	12
$80 < s \leq 100$	12
$100 < s \leq 120$	10
$120 < s \leq 140$	8

(a) On the **same graph paper**, draw a frequency polygon to show the amount of money that the customers spent on the Saturday afternoon. [2]

(b) Use the two frequency polygons to make one comparison between the amount spent on Monday morning and the amount spent on Saturday afternoon. [1]

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