

Frequency Polygons

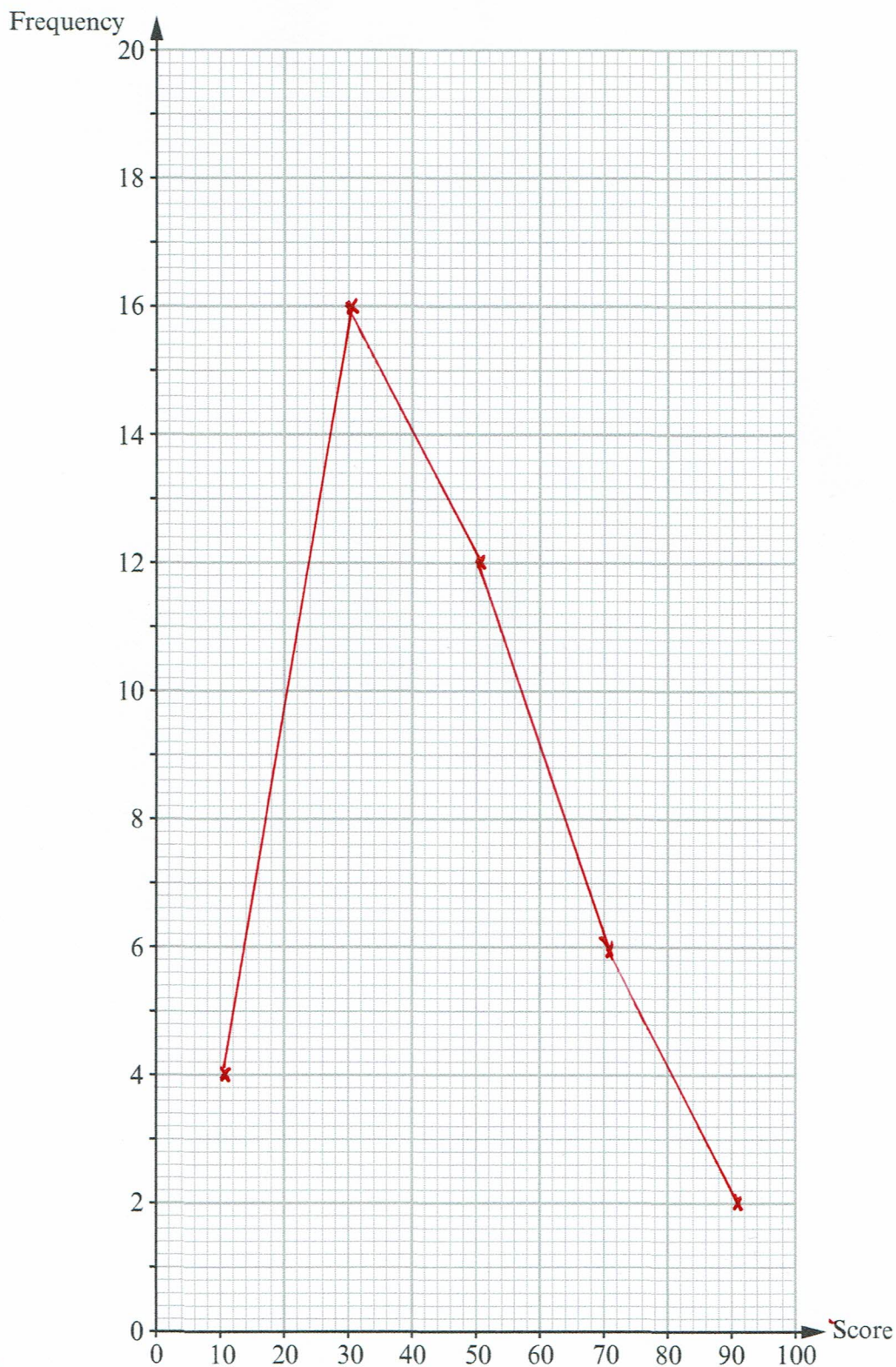
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- (b) The points scored by 40 fishermen in a competition were recorded.
The table shows a grouped frequency distribution of the results.

Score	1 to 20	21 to 40	41 to 60	61 to 80	81 to 100
Frequency	4	16	12	6	2

Midpt *10.5* *30.5* *50.5* *70.5* *90.5*
On the graph paper below, draw a frequency polygon to show the data.

[2]



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10. The duration, in minutes, of each of 150 phone calls was recorded. The table shows a grouped frequency distribution of the results.

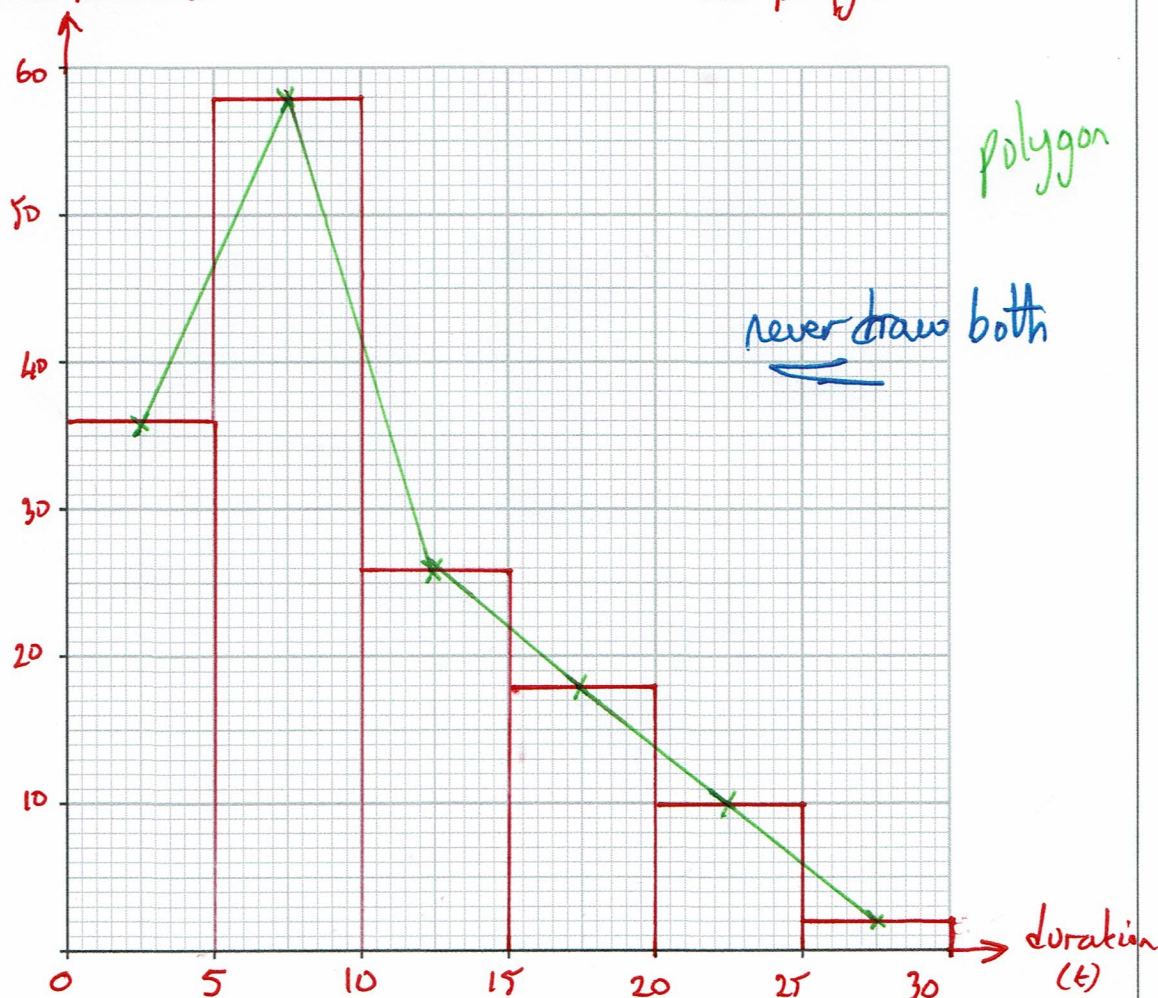
Duration of phone call in minutes (t)	Number of phone calls
$0 < t \leq 5$	36
$5 < t \leq 10$	58
$10 < t \leq 15$	26
$15 < t \leq 20$	18
$20 < t \leq 25$	10
$25 < t \leq 30$	2

- (a) On the graph paper below, draw a grouped frequency diagram for the data.

[3]

Nº of phonecalls.

not polygon!



6. (a) One Saturday an internet café owner recorded the time each of 100 customers spent answering e-mails. The table below shows a summary of the results.

Time, t minutes	Mids	Frequency
$0 < t \leq 10$	5	23
$10 < t \leq 20$	15	27
$20 < t \leq 30$	25	32
$30 < t \leq 40$	35	16
$40 < t \leq 50$	45	2

On the graph paper below draw a frequency polygon for this data.

[3]



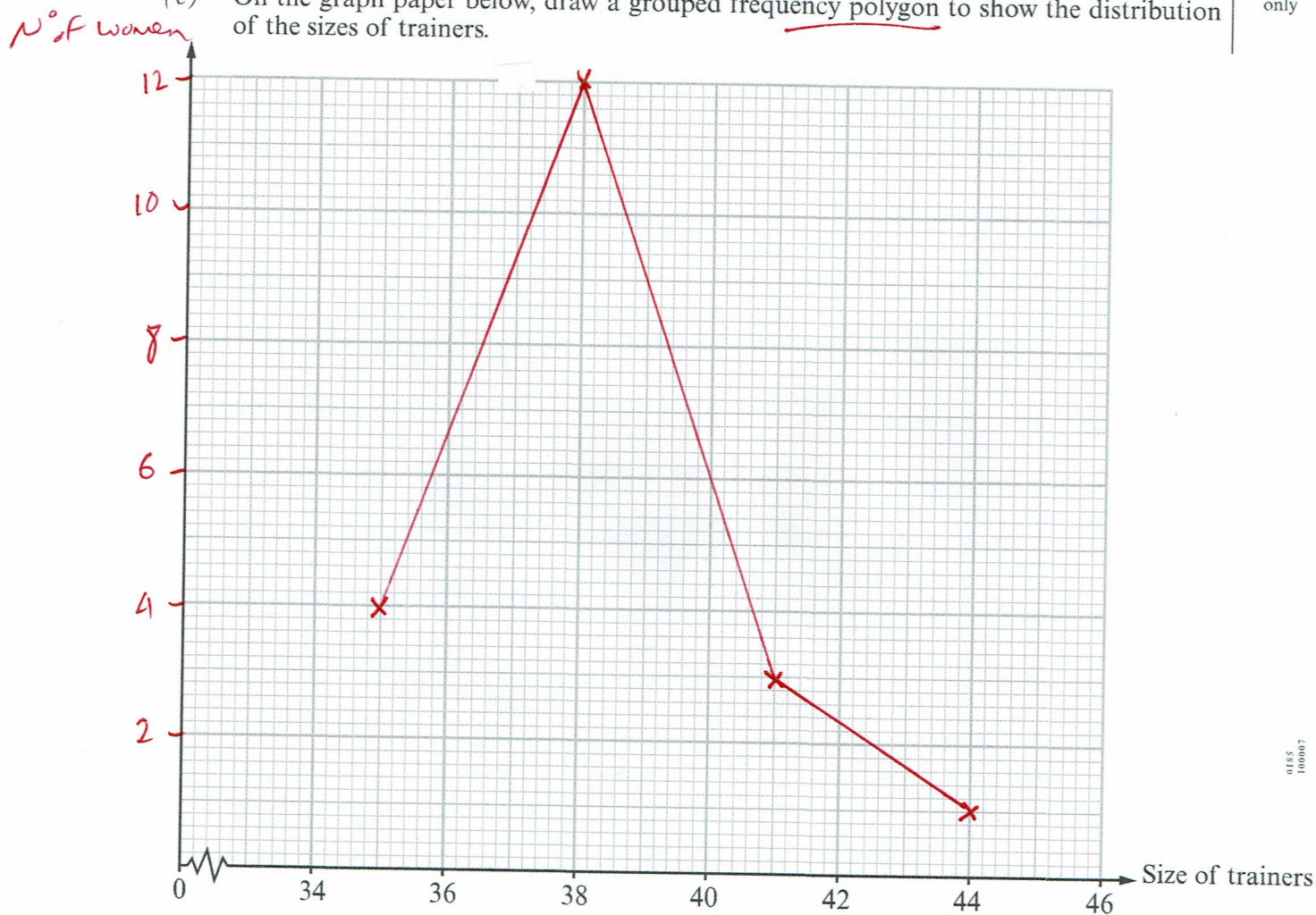
4. Trainer sizes are given as whole numbers.

A survey of the size of trainers worn by 20 women is carried out.
The table below shows a summary of the results.

Size of trainers	Number of women
34 to 36	4
37 to 39	12
40 to 42	3
43 to 45	1

- (c) On the graph paper below, draw a grouped frequency polygon to show the distribution of the sizes of trainers.

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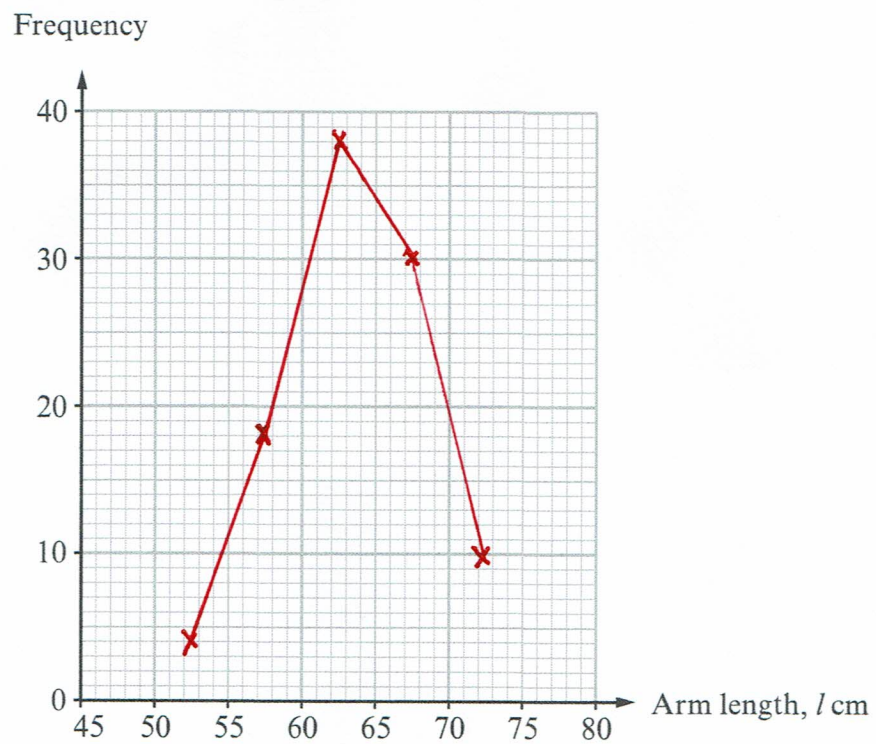
[3]

7. The arm lengths of 100 women were measured in centimetres.
The table below shows a grouped frequency distribution of the results.

	<i>Mid.</i>	<i>52.5</i>	<i>57.5</i>	<i>62.5</i>	<i>67.5</i>	<i>72.5</i>
Arm length, l cm	$50 < l \leq 55$	$55 < l \leq 60$	$60 < l \leq 65$	$65 < l \leq 70$	$70 < l \leq 75$	
Frequency	4	18	38	30	10	

- (a) On the graph paper below, draw a frequency polygon to show this data.

[2]



4. (a) In Bilchbach, the rainfall for each of 10 days was measured. The results are summarised in the table below.

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<u>Mid</u>	Daily rainfall, r (mm)	Number of days
<u>5</u>	$4.5 \leq r < 5.5$	4
<u>6</u>	$5.5 \leq r < 6.5$	2
<u>7</u>	$6.5 \leq r < 7.5$	0
<u>8</u>	$7.5 \leq r < 8.5$	2
<u>9</u>	$8.5 \leq r < 9.5$	2

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- (b) On the graph paper below, draw a frequency polygon to show this rainfall data. [2]

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