



Exercise 14C

Question 7:

Given frequency distribution is as below :

Class Interval	10-14	14-20	20-32	32-52	52-80
Frequency	5	6	9	25	21

In the above table , class intervals are of unequal size, so we calculate the adjusted frequency by using the following formula :

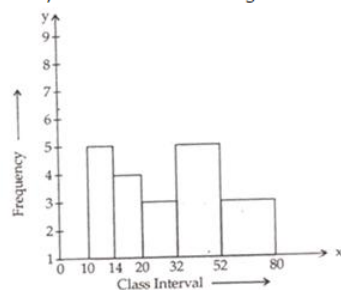
$$\text{Adjusted Frequency} = \frac{\text{Minimum class size} \times \text{its frequency}}{\text{Class size of this class}}$$

Thus , the adjusted frequency table is

Class Intervals	Frequency	Adjusted Frequency
10 - 14	5	$\frac{4}{4} \times 5 = 5$
14 - 20	6	$\frac{4}{6} \times 6 = 4$
20 - 32	9	$\frac{4}{12} \times 9 = 3$
32 - 52	25	$\frac{4}{20} \times 25 = 5$
52 - 80	21	$\frac{4}{28} \times 21 = 3$

Now take class intervals along x-axis and adjusted frequency along y-axis and constant rectangles having their bases as class-size and heights as the corresponding adjusted frequencies.

Thus, we obtain the histogram as shown below:



***** END *****