



MATHS

BOOKS SELINA MATHS (ENGLISH)

GRAPHICAL REPRESENTATION

Exercise 23

1. Draw histograms for the following frequency distributions :

Class interval	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
Frequency	12	20	26	18	10	6

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2. Draw histograms for the following frequency distributions :

Class interval	10 – 16	16 – 22	22 – 28	28 – 34	34 – 40
Frequency	15	23	30	20	16

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3. Draw histograms for the following frequency distributions :

Class interval	30 – 39	40 – 49	50 – 59	60 – 69	70 – 79
Frequency	24	16	09	15	20

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4. Draw a cumulative frequency curve (ogive) for each of the following distributions :

Class interval	10 – 15	15 – 20	20 – 25	25 – 30	30 – 35	35 – 40
Frequency	10	15	17	12	10	8

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5. Draw a cumulative frequency curve (ogive) for each of the following distributions :

Class interval	10 – 19	20 – 29	30 – 39	40 – 49	50 – 59
Frequency	23	16	15	20	12

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6. Draw an ogive for each of the following distributions

Marks obtained	less than 10	less than 20	less than 30	less than 40
No. of students	8	25	38	50

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7. Draw an ogive for each of the following distributions

Age in years (less than)	10	20	30	40	50	60	70
Cumulative frequency	0	17	32	37	53	58	65

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8.

Class mark	12.5	17.5	22.5	27.5	32.5	37.5	42.5
Frequency	12	17	22	27	30	21	16

From the distribution, given above construct a frequency table

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9. The following table shows the distribution of the heights of a group of factory workers :

Determine the cumulative frequencies

Ht. (cm):	150 – 155	155 – 160	160 – 165	165 – 170	170 – 175
No. of workers	6	12	18	20	13

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10. The following table shows the distribution of the heights of a group of factory workers :

Draw the 'less than' cumulative frequency curve on graph paper . Use 2 cm = 5 cm height on one axis and 2 cm = 10 workers on the other

Ht. (cm):	150 – 155	155 – 160	160 – 165	165 – 170	170 – 175
No. of workers	6	12	18	20	13

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11. Construct a frequency distribution table for each of the following distributions

Marks (less than)	0	10	20	30	40	50	60	70	80	90
Cumulative Frequency	0	7	28	54	71	84	105	147	180	196

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12. Construct a frequency distribution table for each of the following distributions

Marks (more than)	0	10	20	30	40	50	60	70	80	90	100
Cumulative Frequency	100	87	65	55	42	36	31	21	18	7	0

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Example

1. Draw a histogram to represent the following

Class interval	0 – 8	8 – 16	16 – 24	24 – 32	32 – 40
Frequency	6	9	12	10	5

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2. Draw a histogram to represent the following

Pocket money in ₹	150 – 200	200 – 250	250 – 300	300 – 350	350 – 400
Frequency	10	5	7	14	3

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3. Draw a histogram for the following

Class interval	11 – 20	21 – 30	31 – 40	41 – 50	51 – 60
Frequency	5	8	13	10	6

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4. Draw the histogram for the following

Class mark	25	35	45	55	65
Frequency	7	15	18	12	8

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5. Draw a cumulative frequency curve (ogive) for the following distribution

Mark	5 – 10	10 – 15	15 – 20	20 – 25	25 – 30
no. of students	7	9	12	8	6

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