

## Lesson - 5. 16.05.2023

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### Frequency distribution<sup>1</sup>

The final grade in Mathematics of 80 students are recorded as follows:

68, 84, 75, 82, 68, 90, 62, 88, 76, 93,  
73, 79, 88, 73, 60, 93, 71, 59, 85, 75,  
61, 65, 75, 87, 74, 62, 95, 78, 63, 72,  
66, 78, 82, 75, 94, 77, 69, 74, 68, 60,  
96, 78, 89, 61, 75, 95, 60, 79, 83, 71,  
79, 62, 67, 97, 78, 85, 76, 65, 71, 75,  
65, 80, 73, 57, 88, 78, 62, 76, 53, 74,  
86, 67, 73, 81, 72, 63, 76, 75, 85, 77

1) The highest grade.

## [1] 97

2) The lowest grade.

## [1] 53

3) The range.

## [1] 44

4) The grades of the five highest ranking students.

## [1] 94 95 95 96 97

5) The grades of the five lowest ranking students.

## [1] 53 57 59 60 60

6) The grade of the tenth high ranking student.

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<sup>1</sup>Exercise taken from Spiegel, M.R. Stephens, L.J. Statistics (Schaum's Outline Series).

## [1] 88

7) The number of students who received grades of 75 or higher.

## [1] 44

8) The number of students who received grades below 85.

## [1] 63

9) The percentage of students who received grades higher than 65 but not higher than 85.

## [1] 61.25

10) Produce an histogram of the data.

