

Statistics Examples

Class 1

Example 1 Ann got the following result in her Christmas exams 40% in English, 50% in Irish and 90% in maths. Find her mean mark.

Example 2 Find the mean of 2, 4, 7, 3 and 1.

Example 3 If 3, 6, 8, x , 9 have a mean of 7 find the value of x .

Example 4 The numbers 2, 4, $2x$, $3x + 4$, 6, 7, 9 have a mean of 8 find the value of x .

Example 5 Using the table below answer the following.

- (i) In how many games where there 3 goals scored?
- (ii) How many games where there?
- (iii) How many goals where scored in total?
- (iv) How many games could have ended in a draw?

Goals	0	1	2	3	4	5
Games	3	6	4	5	0	2

Example 6 Construct a frequency table for the following information, which shows the number of goals scored on the first day of the season. Hence or otherwise find the mean number of goals scored.

1 2 2 3 5 2
2 3 4 1 4 2

Class 2

Example 1 The following shows the ages of 30 children in a housing estate.

Height	0 – 2	2 – 4	4 – 6	6 – 8
No. of pupils	12	9	6	3

Use the table to find

- (a) The maximum number of children that could be less than 3 years old.
- (b) The maximum number of children that could be over 5 years old.
- (c) The mean age.

Example 2 The table below shows the number of goals scored by a team during a season if the mean number of goals scored is 2, find the value of x ?

Goals	0	1	2	3	4
Games	3	3	4	x	3

Example 3 People attending a course were asked to choose one of the whole numbers from 1 to 12. The results were recorded as follows

Number	1 - 3	4 - 6	7 - 9	10 - 12
No. of people	3	x	2	8

Example 4 The mean of 4 numbers is 6 and of another 5 numbers is 8 find mean of all 9 numbers.

Example 5 The mean age of 7 boys in a group is 13. When one of the boys leaves the group the mean age is decreased by 1 find the age of the boy who left.

Class 3

Example 1 Find the mode and the median of 1, 3, 2, 4, 2, 3, 5, 2, 6

Example 2 Find the median of 2, 4, 6, 7, 3, 5

Example 3 From the frequency table below find

- (i) the mode
- (ii) the median.

Goals	0	1	2	3	4	5
Games	3	6	4	5	0	2

Example 4 The following shows the heights of 30 pupils in a school find

- (i) the modal group.
- (ii) the interval in which the median lies.

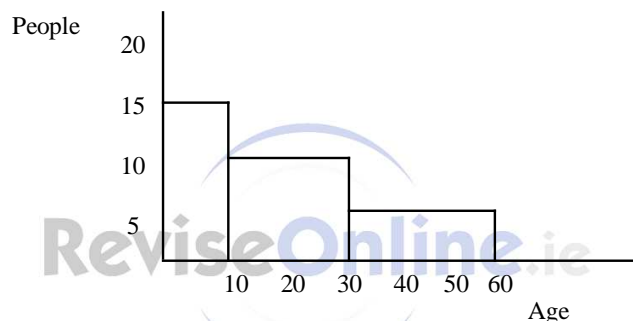
Height	0 – 2	2 – 4	4 – 6	6 – 8
No. of pupils	12	9	6	3

Example 5 At a sports meeting, the distance for competitors each throwing a javelin are

Distance	0 - 20	20 - 50	50 - 60	60 - 80	80 - 120
No. of Competitors	8	21	8	10	24

Show this information in a histogram.

Example 6 The histogram shows the ages of a group of people. What was the modal class?



Class 4

Example 1 Draw a cumulative graph (ogive) to represent the following information, which shows the marks obtained by 100 students in a maths exam.

Marks	0 -10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 - 70
Students	10	2	5	10	41	28	4

Use the graph to find

- (a) The median mark
- (b) The interquartile range.
- (c) The number of students that obtained over 65 marks.

Example 2 From the cumulative frequency fill in the frequency distribution table.

Age	<2	<4	<6	<8	<10
No. of people	3	7	15	19	20

Age	0 - 2	2 - 4	4 - 6	6 - 8	8 - 10
No. of people					

Example 3 The number of goals scored in 20 matches was as follows. Draw a pie chart.

Example 4 Find the numbers in all the parts if the total is 18.

