QUARTILE DETERMINATION (FROM ODD SERIES)

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Quartiles are values that divide a given data series into four equal parts. There are 3 quartiles:

•First Quartile/Lower Quartile- Q1

•Second/Middle Quartile/Median- Q2

•Third/Upper Quartile- Q3

Quartile determination from the series given below:

31, 35, 27, 29, 32, 43, 37, 41, 34, 28, 36, 44, 45, 42, 30

SI No.	Data Series
1	27
2	28
3	29
4	30
5	31
6	32
7	34
8	35
9	36
10	37
11	41
12	42
13	43
14	44
15	45

• Step 1: Arrange the data into ascending (small to large) order

Total no. of observations (\mathbf{n})= 15 i.e. there are total 15 numbers in the given data series

• Step 2: Write down the formulae for determining the Quartile values and find out the values

Rank of Q1= (n+1)/4th observation

= $(15+1)/4^{\text{th}}$ observation = $16/4^{\text{th}}$ observation= 4^{th} observation

<u>Q1 Value</u>= in Sl. No. **4** the data value is **30**

<u>Rank of Q2</u>= $2(n+1)/4^{\text{th}}$ observation= $(n+1)/2^{\text{th}}$ observation

= $(15+1)/2^{\text{th}}$ observation = $16/2^{\text{th}}$ observation=**8**th observation

<u>Q2 Value</u>= in Sl. No. 8 the data value is 35

Rank of Q3= 3(n+1)/4th observation

 $= 3(15+1)/4^{\text{th}}$ observation

= $3*16/4^{\text{th}}$ observation= 12^{th} observation

<u>Q3 Value</u>= in Sl. No. 12 the data value is 42