Quartiles, Deciles and Percentiles

Data Science and A.I. Lecture Series

Bindeshwar Singh Kushwaha

PostNetwork Academy

Reach PostNetwork Academy

Website

PostNetwork Academy | www.postnetwork.co

YouTube Channel

www.youtube.com/@postnetworkacademy

PostNetwork Academy Facebook Page

www.facebook.com/postnetworkacademy

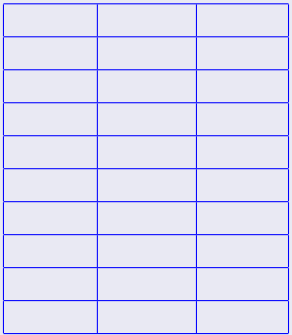
LinkedIn Page

www.linkedin.com/company/postnetworkacademy

From the following data compute the values of quartiles.

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1



From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.		
0-10		
10-20		
20-30		
30-40		
40-50		
50-60		
60-70		
70-80		

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	
0-10	3	
10-20	10	
20-30	17	
30-40	7	
40-50	6	
50-60	4	
60-70	2	
70-80	1	

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	
0-10	3	
10-20	10	
20-30	17	
30-40	7	
40-50	6	
50-60	4	
60-70	2	
70-80	1	
	N=50	

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	
10-20	10	
20-30	17	
30-40	7	
40-50	6	
50-60	4	
60-70	2	
70-80	1	
	N=50	

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	
20-30	17	
30-40	7	
40-50	6	
50-60	4	
60-70	2	
70-80	1	
	N=50	

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	
30-40	7	
40-50	6	
50-60	4	
60-70	2	
70-80	1	
	N=50	

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	
40-50	6	
50-60	4	
60-70	2	
70-80	1	
	N=50	

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	
50-60	4	
60-70	2	
70-80	1	
	N=50	

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	
60-70	2	
70-80	1	
	N=50	

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	
70-80	1	
	N=50	

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :
We have, $\frac{3N}{10} = \frac{3X50}{10} = 15$

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :
We have, $\frac{3N}{10} = \frac{3X50}{10} = 15$
Cumulative frequency just greater than 15 is 30, and the corresponding class is 20-30.

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :
We have, $\frac{3N}{10} = \frac{3X50}{10} = 15$
Cumulative frequency just greater than 15 is 30, and the corresponding class is 20-30.
So, 20-30 is the third decile class such that l=20, f=17,h=10,F=13, N=50

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :
We have, $\frac{3N}{10} = \frac{3X50}{10} = 15$
Cumulative frequency just greater than 15 is 30, and the corresponding class is 20-30.
So, 20-30 is the third decile class such that l=20, f=17,h=10,F=13, N=50

$D_3 = l + \frac{\frac{3N}{10} - F}{f} xh$

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :
We have, $\frac{3N}{10} = \frac{3X50}{10} = 15$
Cumulative frequency just greater than 15 is 30, and the corresponding class is 20-30.
So, 20-30 is the third decile class such that l=20, f=17,h=10,F=13, N=50

$D_3 = l + \frac{\frac{3N}{10} - F}{f} xh$

Third decile

$D_3 = 20 + 10x\frac{15-13}{17} = 21.05$

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :
We have, $\frac{3N}{10} = \frac{3X50}{10} = 15$
Cumulative frequency just greater than 15 is 30, and the corresponding class is 20-30.
So, 20-30 is the third decile class such that l=20, f=17,h=10,F=13, N=50

$D_3 = l + \frac{\frac{3N}{10} - F}{f} xh$

Third decile

$D_3 = 20 + 10x\frac{15-13}{17} = 21.05$

Computing D_7:

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :
We have, $\frac{3N}{10} = \frac{3X50}{10} = 15$
Cumulative frequency just greater than 15 is 30, and the corresponding class is 20-30.
So, 20-30 is the third decile class such that l=20, f=17,h=10,F=13, N=50

$D_3 = l + \frac{\frac{3N}{10} - F}{f} xh$

Third decile

$D_3 = 20 + 10x\frac{15-13}{17} = 21.05$

Computing D_7:
We have, $\frac{7N}{10} = \frac{7x50}{10} = 35$

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :
We have, $\frac{3N}{10} = \frac{3X50}{10} = 15$
Cumulative frequency just greater than 15 is 30, and the corresponding class is 20-30.
So, 20-30 is the third decile class such that l=20, f=17,h=10,F=13, N=50

$D_3 = l + \frac{\frac{3N}{10} - F}{f} xh$

Third decile

$D_3 = 20 + 10x\frac{15-13}{17} = 21.05$

Computing D_7:
We have, $\frac{7N}{10} = \frac{7x50}{10} = 35$
Cumulative frequency just greater than 35 is 37, and the corresponding class is 30-40.

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :
We have, $\frac{3N}{10} = \frac{3X50}{10} = 15$
Cumulative frequency just greater than 15 is 30, and the corresponding class is 20-30.
So, 20-30 is the third decile class such that l=20, f=17,h=10,F=13, N=50

$D_3 = l + \frac{\frac{3N}{10} - F}{f} xh$

Third decile

$D_3 = 20 + 10x\frac{15-13}{17} = 21.05$

Computing D_7:
We have, $\frac{7N}{10} = \frac{7x50}{10} = 35$
Cumulative frequency just greater than 35 is 37, and the corresponding class is 30-40.
So, 30-40 is the seventh decile class such that l=30, f=7,h=10,F=30, N=50

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :
We have, $\frac{3N}{10} = \frac{3X50}{10} = 15$
Cumulative frequency just greater than 15 is 30, and the corresponding class is 20-30.
So, 20-30 is the third decile class such that l=20, f=17,h=10,F=13, N=50
$D_3 = l + \frac{\frac{3N}{10} - F}{f} xh$
Third decile
$D_3 = 20 + 10x\frac{15-13}{17} = 21.05$

Computing D_7:
We have, $\frac{7N}{10} = \frac{7x50}{10} = 35$
Cumulative frequency just greater than 35 is 37, and the corresponding class is 30-40.
So, 30-40 is the seventh decile class such that l=30, f=7,h=10,F=30, N=50
$D_7 = l + \frac{\frac{7N}{10} - F}{f} xh$

From the following data compute the values of quartiles.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
f_i	3	10	17	7	6	4	2	1

C.I.	f_i	C. F.
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50
	N=50	

Computing D_3 :
We have, $\frac{3N}{10} = \frac{3X50}{10} = 15$
Cumulative frequency just greater than 15 is 30, and the corresponding class is 20-30.
So, 20-30 is the third decile class such that l=20, f=17,h=10,F=13, N=50
$D_3 = l + \frac{\frac{3N}{10} - F}{f} xh$
Third decile
$D_3 = 20 + 10x\frac{15-13}{17} = 21.05$

Computing D_7:
We have, $\frac{7N}{10} = \frac{7x50}{10} = 35$
Cumulative frequency just greater than 35 is 37, and the corresponding class is 30-40.
So, 30-40 is the seventh decile class such that l=30, f=7,h=10,F=30, N=50
$D_7 = l + \frac{\frac{7N}{10} - F}{f} xh$
Seventh decile
$D_7 = 30 + 10x\frac{35-30}{7} = 37.14$