7).Q Q plot:

7.1)The process.

H_0 : Population distribution is a continuous probability distribution.

There are sample data and the sample size is n.

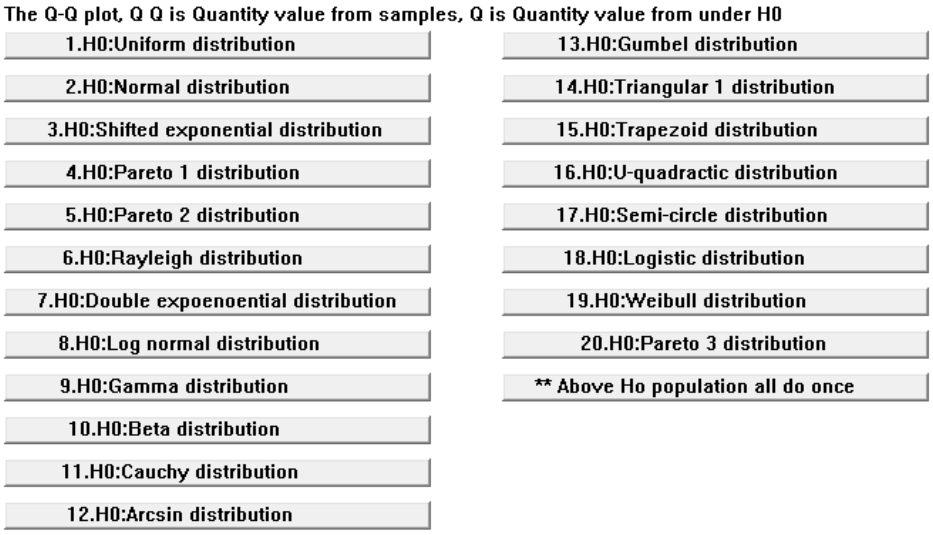
The x is sample value after ascending sorting.

$P(X \le x^*) =$ number of (X) / n, $X \sim H_0$: Population distribution

(x, x^*)

which scatter diagram is Q Q plot.

7.2) Example (The simulated sample data and computing the result by the P_S_CCC)

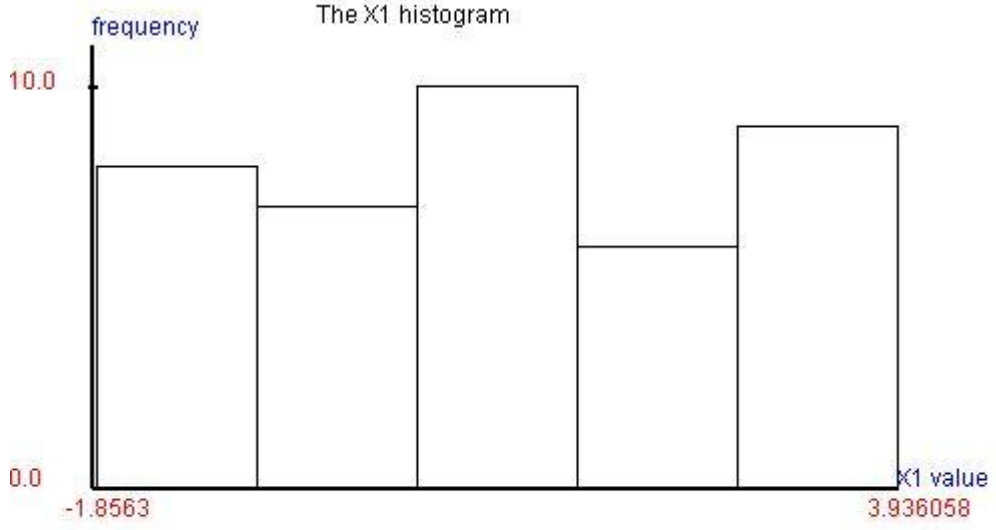


7.2.1)The population distribution is uniform distribution.

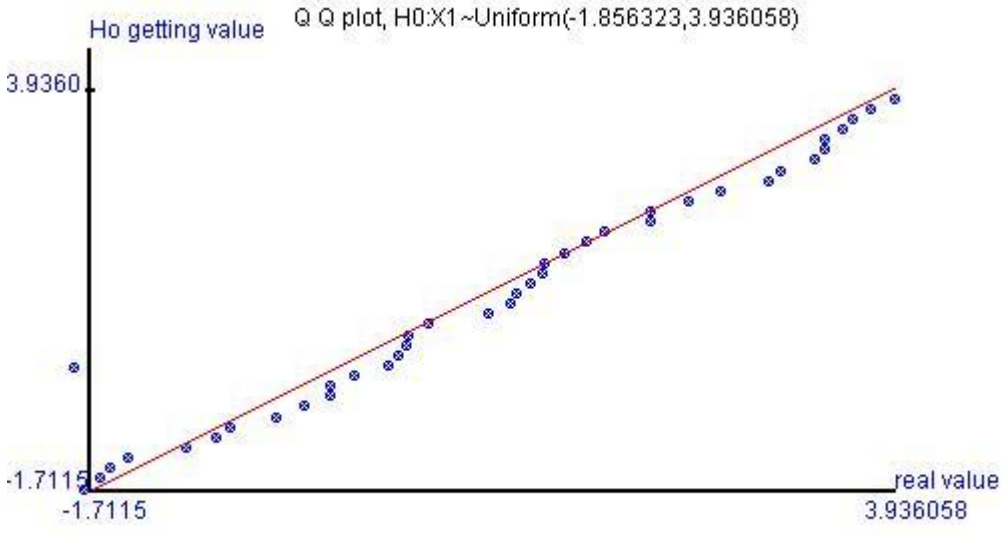
X1 is Uniform(alpha=-2.000000,beta=4.000000),

X1
3.9360581422
2.7135848224
1.0751228373
2.4876627159
-0.0440586085
3.4499045379
-1.0484238950
-1.7937828463
0.4348836437
-1.5911403439
1.4576673095
-0.4262589188
0.6535456985
1.8921016358
3.6416969761
3.1386977355
1.6182802063
0.4963417238
-1.4670136424
1.2352304468
-0.0347105085
1.4673408691
-1.6600375533
1.3730999709
-0.8444631320
-1.8563230548
2.2235255092
0.1252112306
1.2792403656
3.0527547830
3.4549143434
3.5732725128
1.7733961064
2.2204261725
-0.2237427420
3.3732286142
0.3735407456
-0.7389199291
3.7699113187
0.5077862805

X1 is Uniform(alpha=-2.000000,beta=4.000000),



H0: X1~Uniform(alpha,beta), alpha,beta are unknown
alpha point estimated value=-1.856323 (MLE)
beta point estimated value=3.936058 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot01_image.jpg

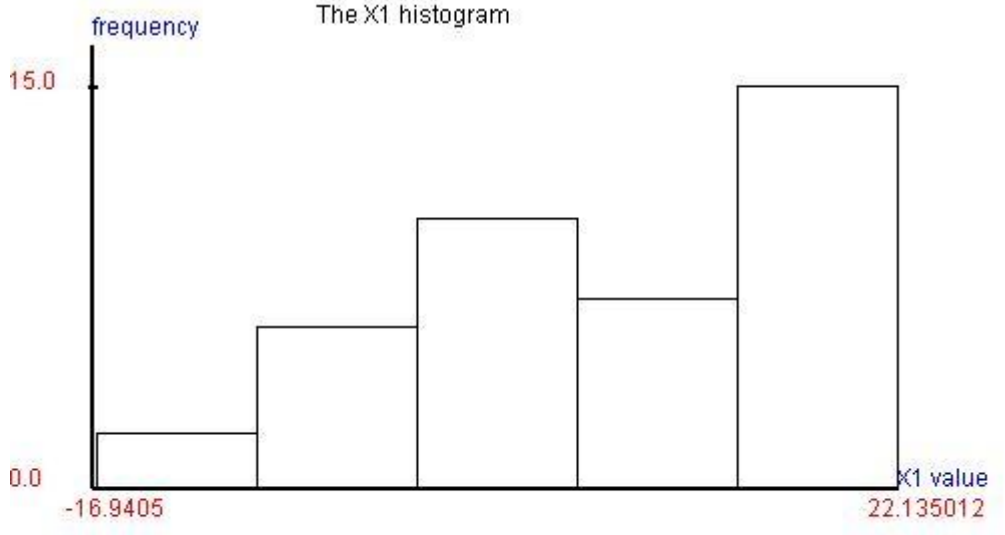


7.2.2)The population distribution is normal distribution.

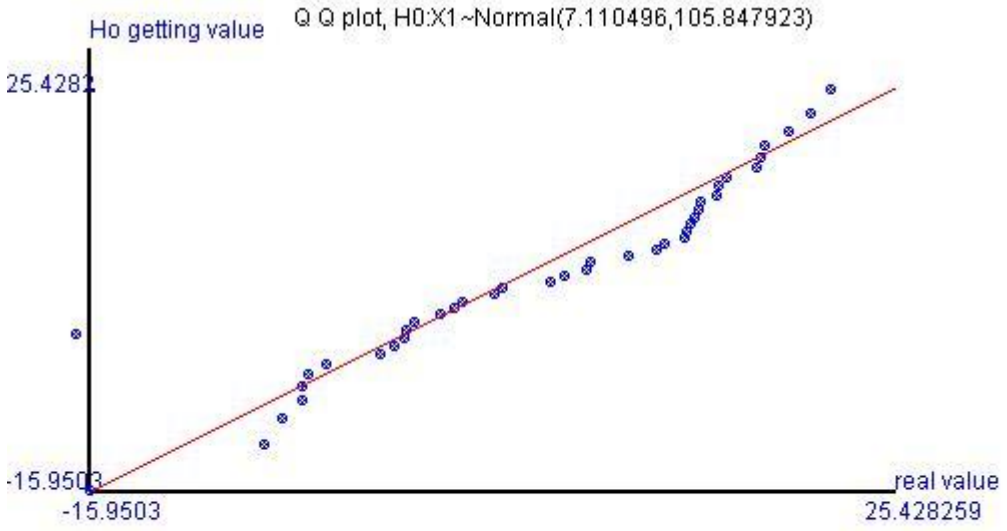
X1 is Normal(mu=4.000000,sigma*sigma=100.000000),

X1
0.2447497952
-5.1288944381
16.7443177332
15.1295499450
13.1929029869
0.6842423583
-16.9405404606
16.2989677394
-6.2174204669
-5.1078081445
11.6701180970
-1.1526432452
2.0133932168
14.6288193901
15.4114439204
15.3629476837
-0.3693281126
20.0073488797
-3.8670297164
18.5769333666
0.1606139691
18.3051027241
4.7848280785
8.3973849956
-7.1450654619
3.1843244096
9.5657899682
13.6047377372
21.1047141158
22.1350122218
5.2100251448
2.7604004510
18.7235056473
14.7648581000
-16.1867380447
7.7177264335
-4.8062428215
9.7052222289
16.3663425147
14.8852249421

X1 is Normal(mu=4.000000,sigma*sigma=100.000000),



H0: X1~Normal(mu,sigma*sigma), mu,sigma are unknown
population mean(mu) point estimated value=7.110496 (MLE,UMVUE)
population variance(sigma*sigma) which point estimated value=105.847923 (UMVUE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot02_image.jpg

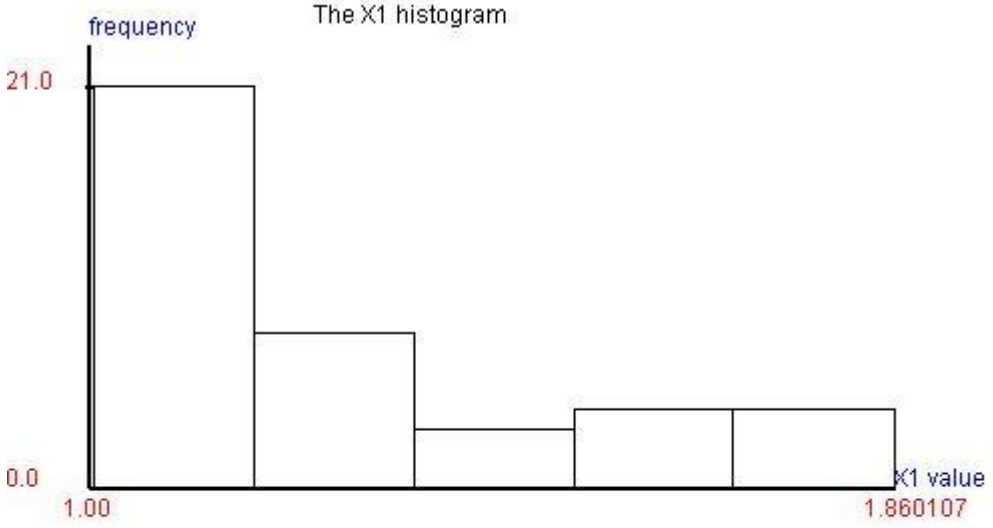


7.2.3)The population distribution is shifted exponential distribution.

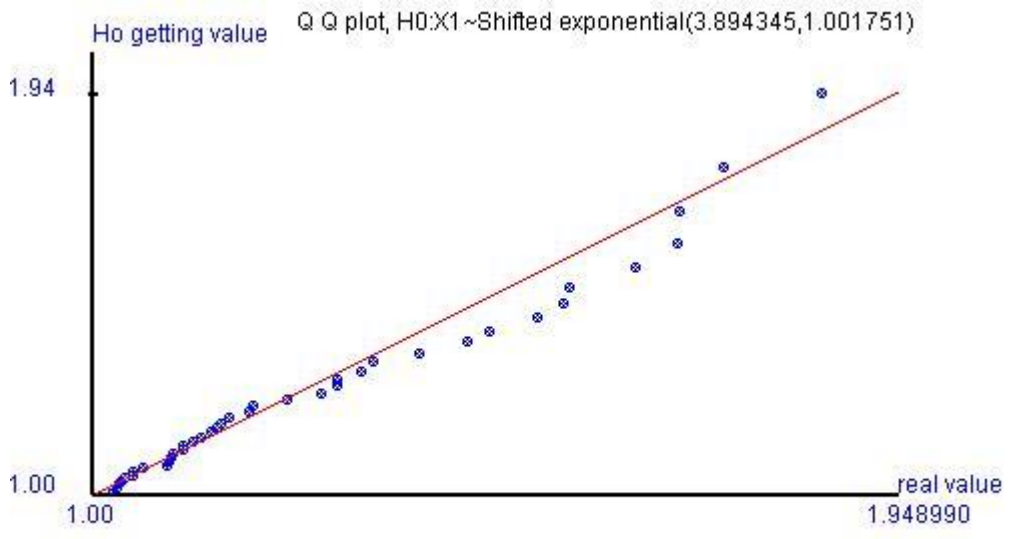
X1 is Exponetial(lamda=4.000000,c=1.000000),

X1
1.3162588499
1.2272681566
1.0320985157
1.4410399046
1.3838357310
1.0208053498
1.0017507864
1.0456009090
1.1382121768
1.1496148792
1.6931074141
1.5539326123
1.7440280476
1.8601075064
1.1256098280
1.2879679621
1.1872828207
1.1158842937
1.6390364912
1.1826367587
1.2879423674
1.1044000039
1.0913926849
1.0920921764
1.0464678639
1.1056851235
1.0362609425
1.6895804191
1.0579458160
1.4662562412
1.3302759159
1.2685286772
1.0295167475
1.5626798189
1.1583301373
1.5239999184
1.0849471081
1.0259985774
1.1447879786
1.0881674732

X1 is Exponetial(lamda=4.000000,c=1.000000),



H0: X1~Shifted exponential(lamda,c), lamda,c are unknown
lamda point estimated value=3.894345 (MLE)
c point estimated value=1.001751 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot03_image.jpg

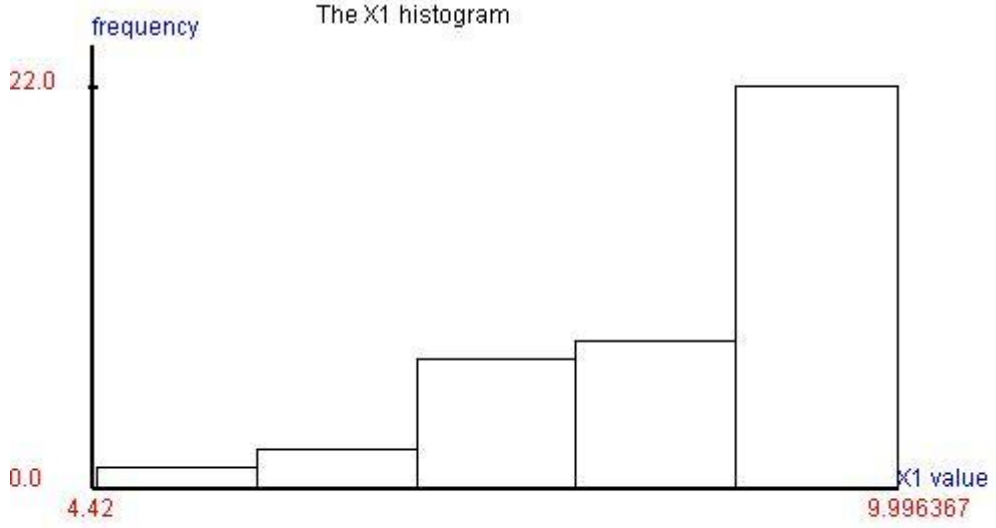


7.2.4)The population distribution is pareto1 distribution.

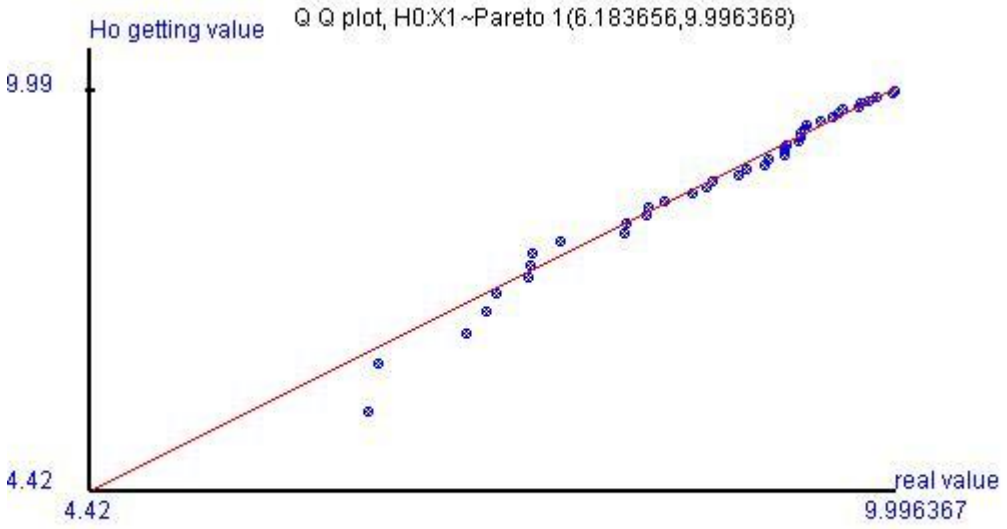
X1 is Pareto1(lamda=5.000000,c=10.000000),

X1
9.3918666834
9.6479450965
9.3480680628
8.4007663091
9.6159807961
8.7404782692
8.9694358000
9.2441907590
9.1216729964
9.5713410028
9.8847289067
7.4796464834
7.0170863045
7.4723463817
7.1633205391
6.3428598876
8.1270955927
9.3407728571
8.6992400786
9.3523111886
7.2288354557
7.6741979266
8.1368243597
8.5963592962
9.1007147997
8.2893816084
9.2536432164
9.7573769682
9.8230663619
4.4256087993
8.9131083432
8.2753453331
9.4871245834
6.4073501361
9.2315690583
9.3796530975
9.9963675492
9.7627771470
7.4609460846
9.9938578917

X1 is Pareto1(lamda=5.000000,c=10.000000),



H0: X1~Pareto 1(lamda,c), lamda,c are unknown
lamda point estimated value=6.183656 (MLE)
c point estimated value=9.996368 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot04_image.jpg

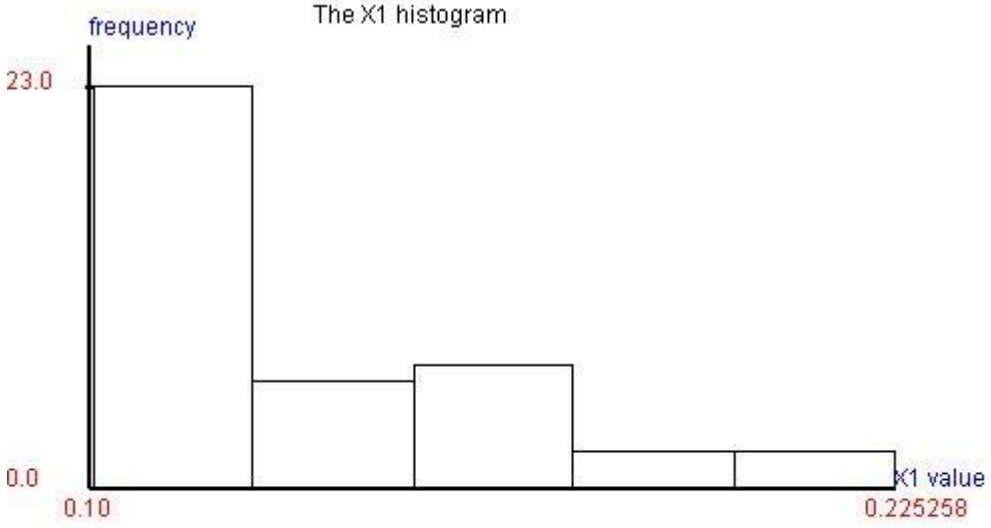


7.2.5)The population distribution is pareto2 distribution.

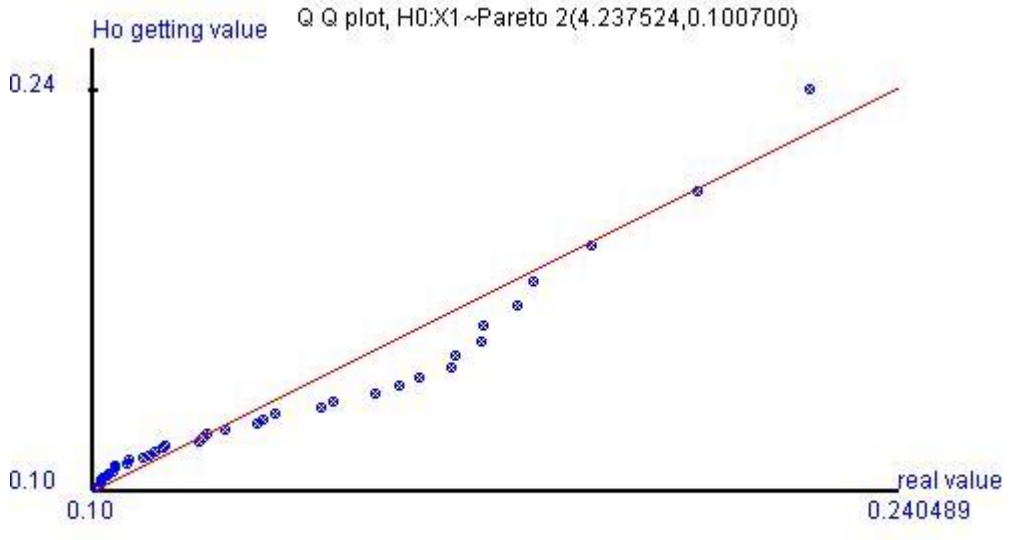
X1 is Pareto2(lamda=4.000000,c=0.100000),

X1
0.1679660262
0.2057316451
0.1400212692
0.1125010093
0.1014124637
0.1872832492
0.1633043848
0.1036935387
0.2252589856
0.1007002729
0.1014272630
0.1742127005
0.1039121331
0.1537457465
0.1570374788
0.1061942198
0.1298293840
0.1031330446
0.1627887064
0.1422312815
0.1010711511
0.1027138085
0.1683731912
0.1493264469
0.1088366082
0.1100734438
0.1231721213
0.1320045658
0.1195558107
0.1199487125
0.1065702492
0.1009503252
0.1287265053
0.1128485758
0.1111725689
0.1018618766
0.1769828191
0.1041335102
0.1016705752
0.1186285635

X1 is Pareto2(lamda=4.000000,c=0.100000),



H0: X1~Pareto 2(lamda,c), lamda,c are unknown
lamda point estimated value=4.237524 (MLE)
c point estimated value=0.100700 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot05_image.jpg

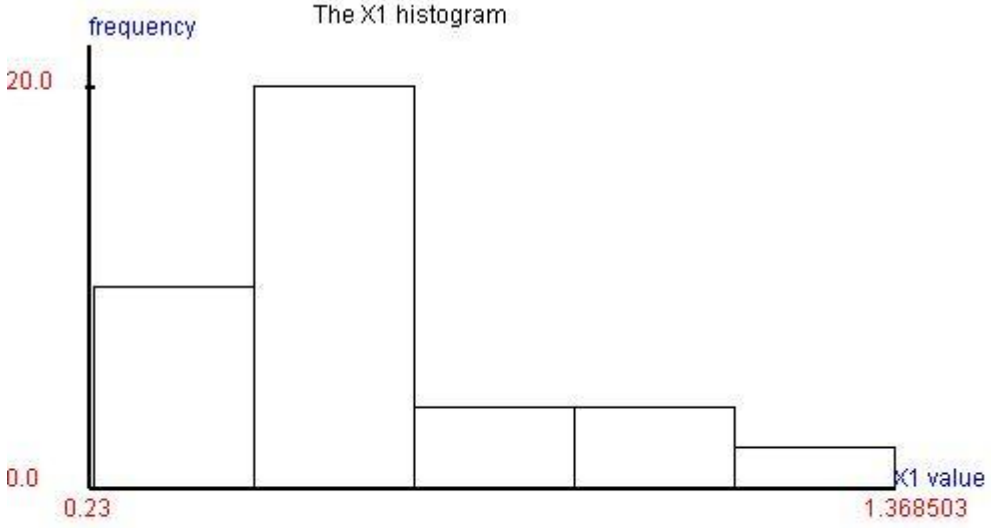


7.2.6)The population distribution is rayleigh distribution.

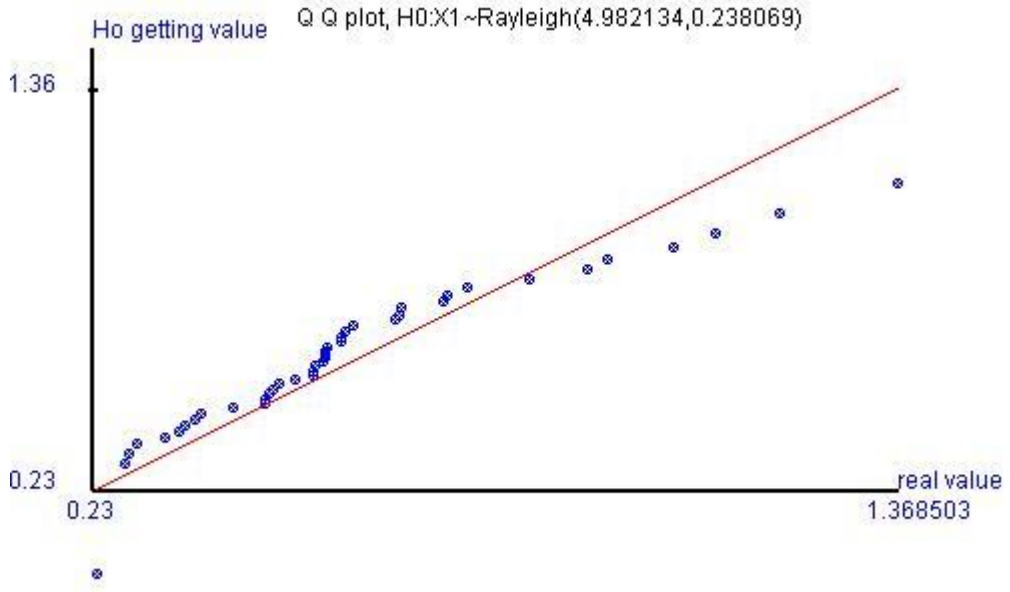
X1 is Rayleigh(lamda=4.000000,c=0.200000),

X1
0.4970301120
0.2949539165
0.5616892366
0.6675398718
1.1126588206
0.8493330769
0.2838118133
0.3631188521
0.5605309731
0.2802032892
0.4313359039
1.3685035199
0.2380687803
0.3556792931
0.5441456891
0.5442653741
0.4880798679
0.5461374465
0.4773853588
1.2035329319
0.3872802369
0.5632677988
0.7342865522
0.6613450981
0.5841707218
0.5834700118
0.9598300677
0.7633353108
0.3768792099
0.5912248617
0.5191583684
1.0532767592
0.5591482885
0.5998386311
0.6692106895
0.4766713905
0.7277272920
0.4836354337
0.9312904144
0.3357759237

X1 is Rayleigh(lamda=4.000000,c=0.200000),



H0: X1~Rayleigh(lamda,c), lamda,c are unknown
lamda point estimated value=4.982134 (MLE)
c point estimated value=0.238069 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot06_image.jpg

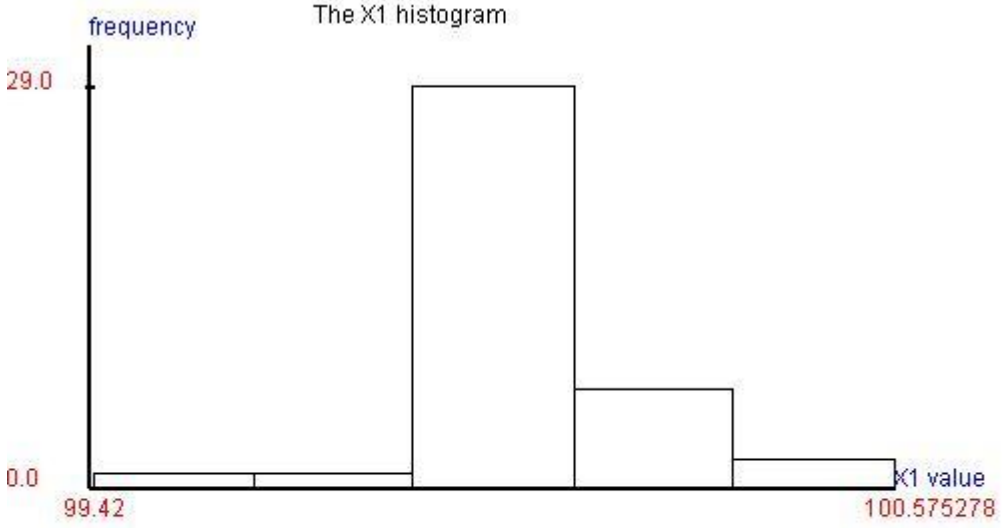


7.2.7)The population distribution is double exponential distribution.

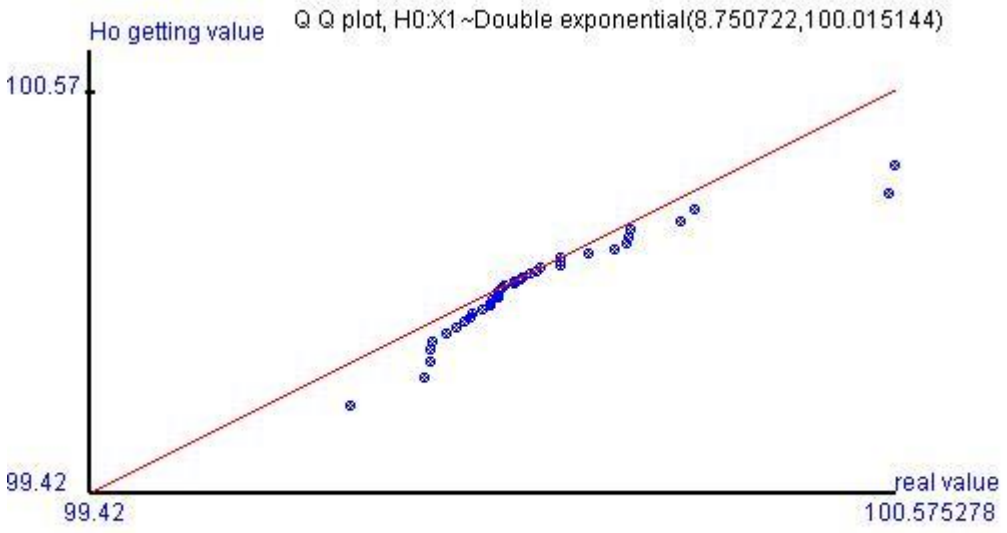
X1 is Double Exponetial(lamda=10.000000,mu=100.000000),

X1
100.0441309122
99.9010484838
99.9964169917
100.0089378167
100.1929805668
100.0397381984
99.9120845950
100.2706913645
100.0556690452
100.0305116277
99.9350484737
100.5679865325
100.0083591186
99.9477504855
99.9709913734
100.1375129792
100.1975136153
100.5752788207
100.0616932712
100.0959159885
100.0307659355
100.0975680848
100.1953485590
99.9980475555
100.1742378937
100.0142963307
100.0092484839
99.9864146762
100.0983929275
99.7952312182
99.9094775315
100.0159926321
99.9127112343
99.4270451474
100.2905307122
100.0698712315
99.9596470075
99.9676940236
100.0010078331
100.0098208699

X1 is Double Exponetial(lamda=10.000000,mu=100.000000),



H0: X1~Double exponential(lamda,mu), lamda,mu are unknown
lamda point estimated value=8.750722 (MLE)
mu point estimated value=100.015144 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot07_image.jpg



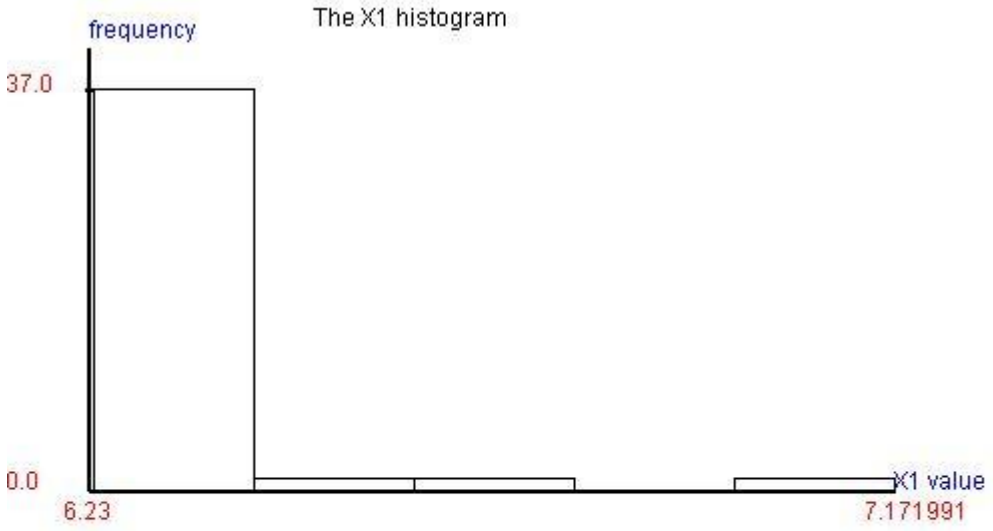
7.2.8)The population distribution is lognormal distribution.

X1 is Log normal(mu=40.000000,sigma=2.000000),

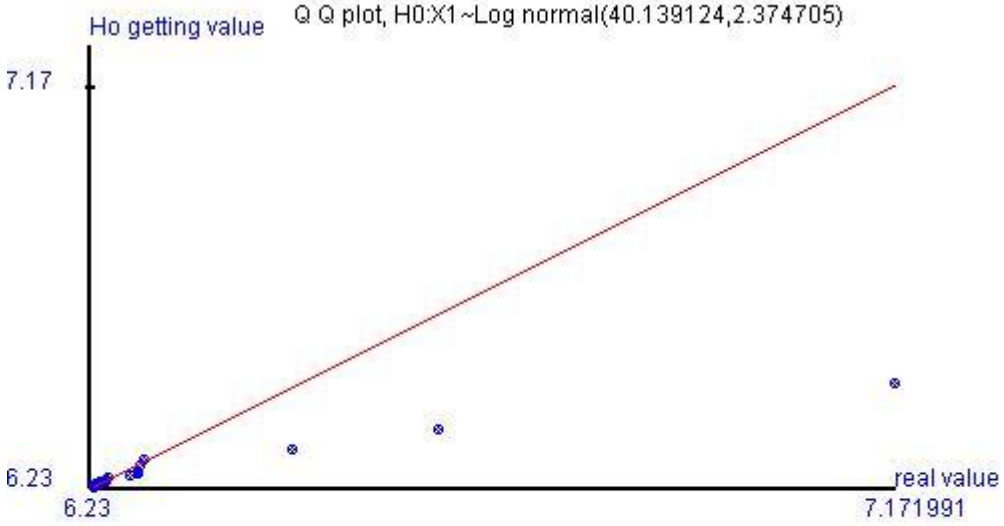
X1

358542750648826240.0000000000
403144363403817500.0000000000
235689959700777600.0000000000
298054412713201410.0000000000
101485112875680910.0000000000
9589105428969220.0000000000
100405141817366100.0000000000
1343356650649688800.0000000000
169310568174287840.0000000000
32250563519688016.0000000000
427285110172034940.0000000000
1126876286180967900.0000000000
403499190504660l700.0000000000
760215548600755580.0000000000
27368776968557592.0000000000
12457955859998746.0000000000
17842919774176420000.0000000000
47582551146687080.0000000000
138035810088330220.0000000000
153668846299455710.0000000000
623089941875736.6200000000
68348177803085360.0000000000
215761775959879200.0000000000
3352126270212723700.0000000000
112459459432632820.0000000000
58634612480640288.0000000000
4290542411141302300.0000000000
116907556292244300.0000000000
411108426400881920.0000000000
116833704068566910.0000000000
30902934015540314000.0000000000
87652433906394800.0000000000
95739837901874496.0000000000
51776395023531032.0000000000
4559377225151198200.0000000000
545699096021270780.0000000000
1115590632497590900.0000000000
590731803050967810.0000000000
3805892906863706.5000000000
71719913890624782000.0000000000

X1 is Log normal(mu=40.000000,sigma=2.000000),



H0: X1~Log_Normal(mu,sigma*sigma), mu,sigma are unknown
population mean(mu) point estimated value=40.139124 (MLE,UMVUE)
population variance(sigma*sigma) which point estimated value=5.639224 (UMVUE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot08_image.jpg

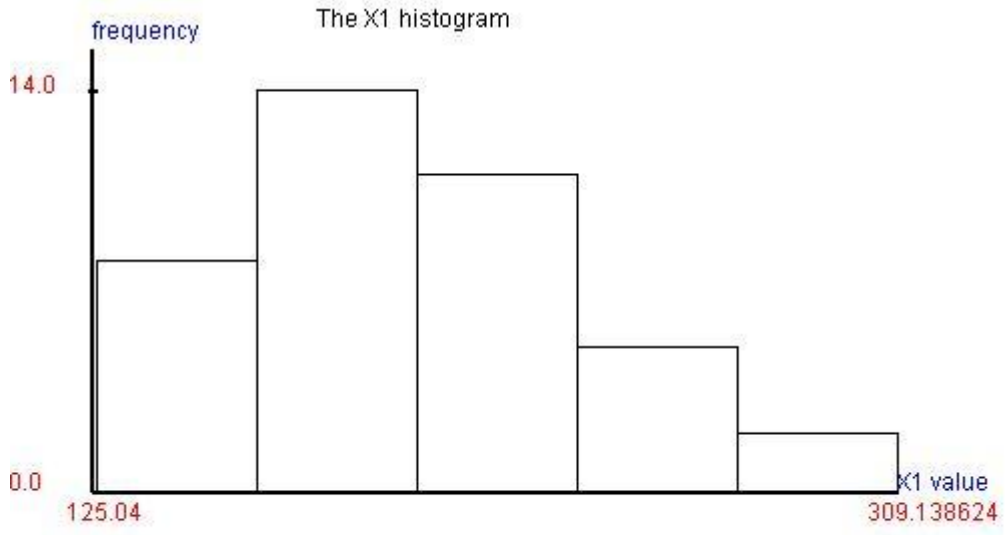


7.2.9)The population distribution is gamma distribution.

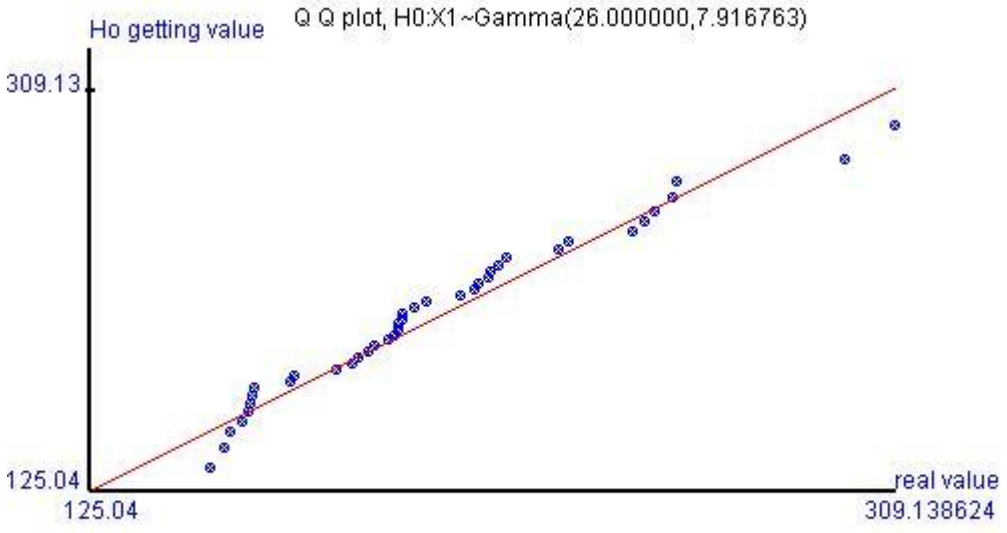
X1 is Gamma(alpha=20.500000,beta=10.000000),

X1
194.1851972510
254.0390186317
161.1566815441
196.3251958032
152.1107067111
198.7642083002
234.2597694799
156.5760457549
216.4045690653
259.1831046908
196.3593753509
209.4496260850
213.5860230137
258.1216978321
195.2568797913
159.4383240672
161.4210775866
212.5135223020
216.0249516547
218.3270223556
201.4763617179
248.9674258817
185.8928801739
161.9431460162
171.2910147035
232.2448724254
155.2413268017
309.1386248331
188.4551054475
125.0432100331
184.4469704810
220.3100210619
297.9414161914
181.1532056071
160.8491930243
195.1257097984
251.6738843612
170.2080368913
192.9014029124
189.8807168171

X1 is Gamma(alpha=20.500000,beta=10.000000),



H0: X1~Gamma(alpha,beta), alpha,beta are unknown
alpha point estimated value=26.000000 (MME)
beta point estimated value=7.916763 (MME)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot09_image.jpg

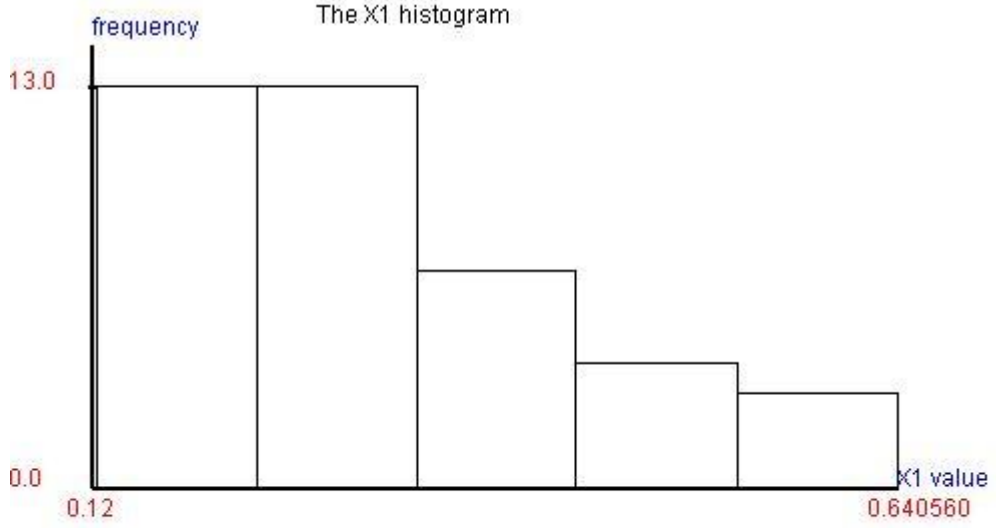


7.2.10)The population distribution is beta distribution.

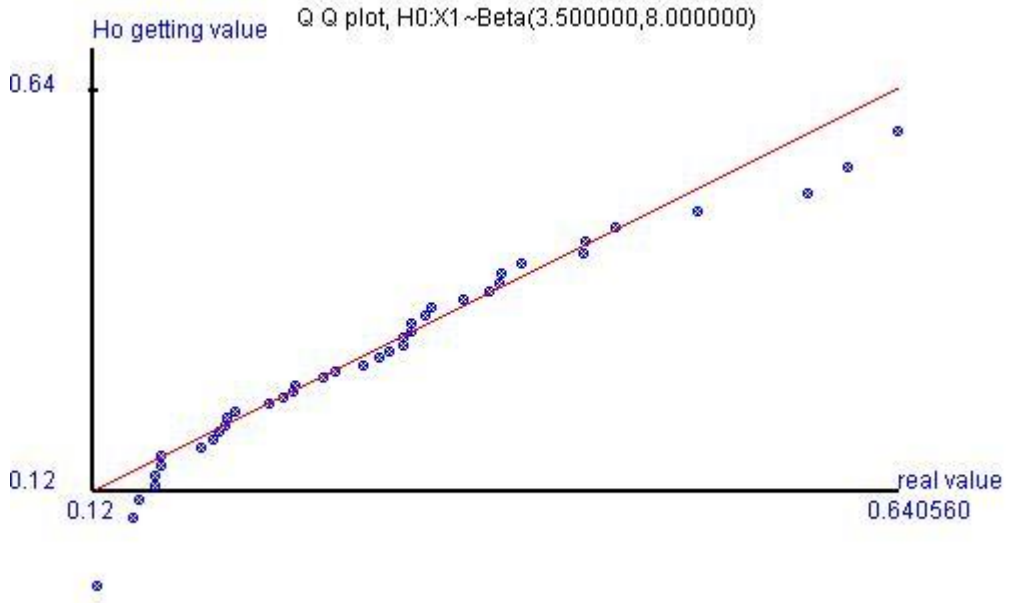
X1 is Beta(alpha=4.500000,beta=10.500000),

X1
0.3785715493
0.1669513209
0.1634039551
0.2360459358
0.5123569069
0.2456254907
0.2797761662
0.6405607264
0.2515875178
0.3865153667
0.2045685237
0.3075923561
0.2003611435
0.4393922007
0.3284837749
0.2539606143
0.3230960676
0.3621386807
0.4594050484
0.2717894749
0.3985404833
0.1489727290
0.3373620530
0.1677035356
0.6089411139
0.2095289636
0.3285788493
0.3412306272
0.2080039062
0.1252056462
0.1932718751
0.1535395492
0.2148522037
0.2972359611
0.3144154243
0.5835606256
0.1637653280
0.3226197827
0.3846889448
0.4406542470

X1 is Beta(alpha=4.500000,beta=10.500000),



H0: X1~Beta(alpha,beta), alpha,beta are unknown
alpha point estimated value=3.500000 (MME)
beta point estimated value=8.000000 (MME)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot10_image.jpg

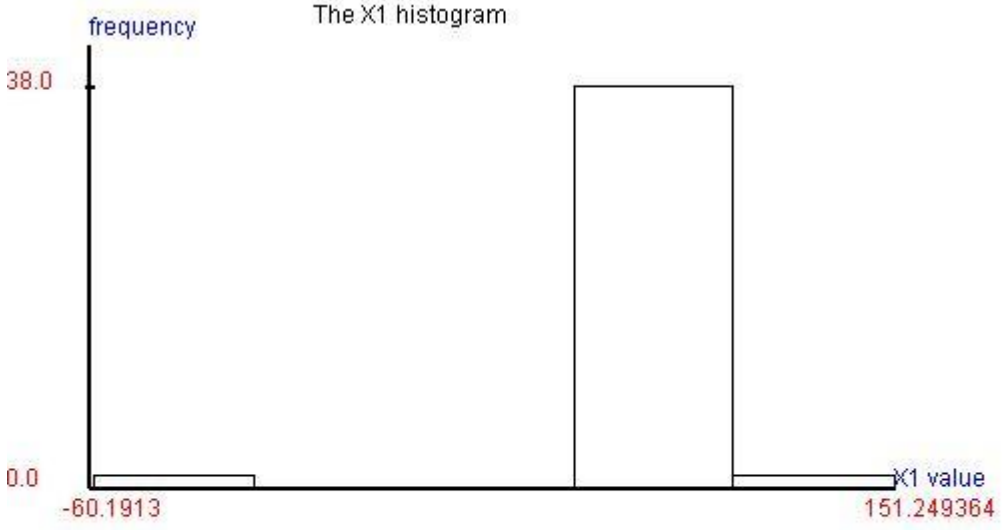


7.2.11)The population distribution is cauchy distribution.

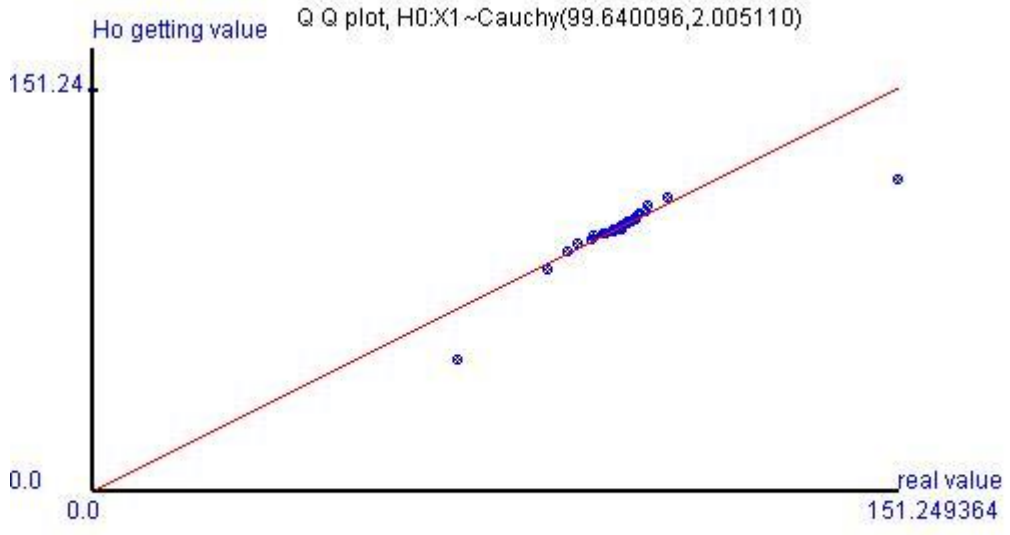
X1 is Cauchy(mu=100.000000,sigma=2.000000),

X1
100.1817151469
99.1678182522
100.2680204361
99.6455919806
100.1831929151
95.8252167397
102.7603309424
99.1570266829
101.7177055075
102.2933437224
-60.1913432096
101.0803909188
68.0853270214
151.2493644877
101.4755131653
94.0170248298
100.4799785693
107.9943102844
99.1125446328
91.0993907174
100.7917104868
99.3237869557
93.5168725185
97.2135468511
98.7848735670
99.7911850783
99.9878760930
104.3412226420
103.9674295966
97.7170383730
99.5916541246
99.8851080368
97.7832597007
101.9353679220
85.1003649328
96.2390504773
99.1586782734
99.6345993285
88.8665266527
101.7708788857

X1 is Cauchy(mu=100.000000,sigma=2.000000),



H0: X1~Cauchy(mu,sigma), mu,sigma are unknown
mu point estimated value=99.640096
sigma point estimated value=2.005110
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot11_image.jpg

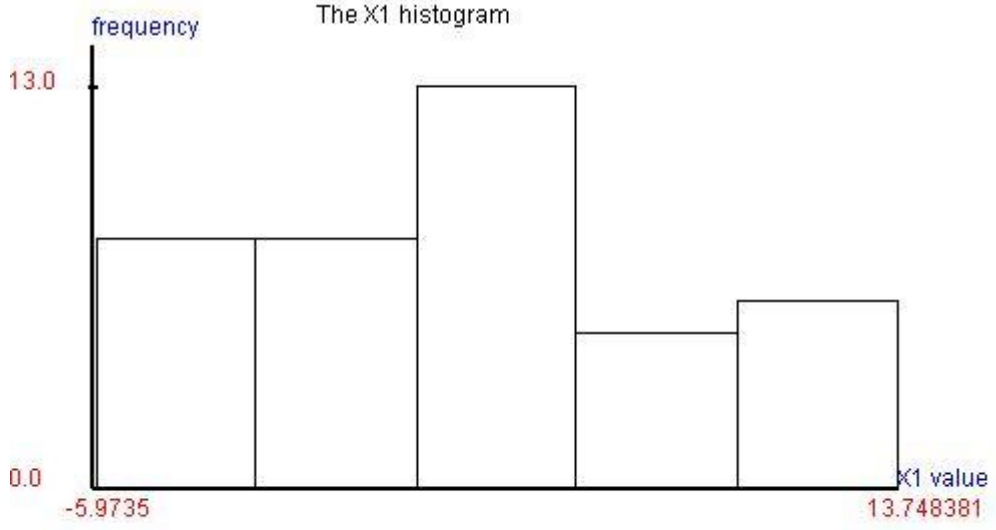


7.2.12)The population distribution is arcsin distribution.

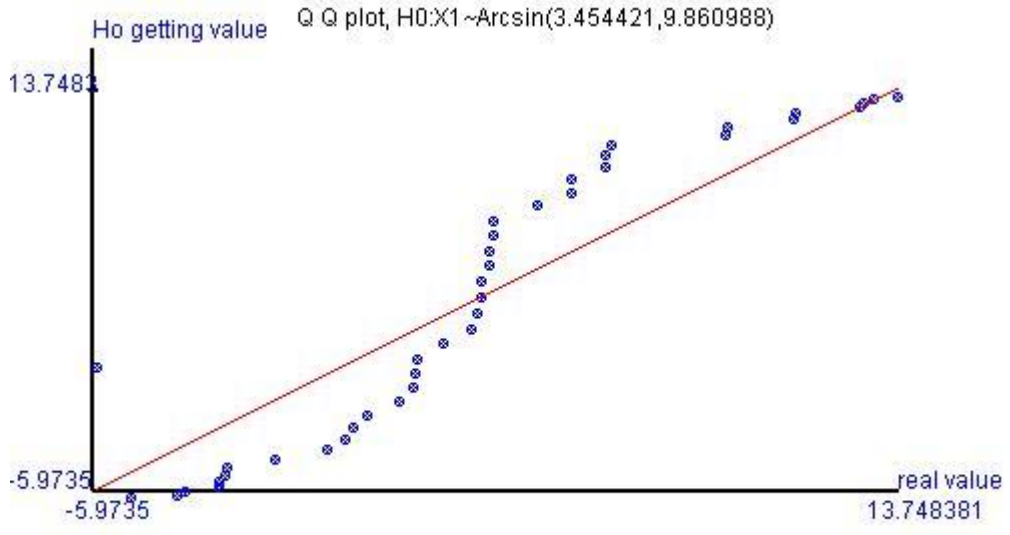
X1 is Arcsin(mu=4.000000,c=10.000000),

X1
3.5156556172
1.8733948480
12.9375555439
13.7483814631
1.5194291474
0.1658224019
1.8578701035
3.7255916619
-2.7322345732
11.2000530252
11.2560746730
4.9080034646
6.5650235851
9.5800058655
-3.9843121335
5.7364186928
3.2670243965
0.7009355146
-0.2955536993
-2.9209000576
12.8260112153
3.4406154957
6.5808699366
6.7036202687
-2.9639275037
13.1909238023
-3.7873106643
3.7962750006
2.5705180864
-1.5638442648
0.3685175640
-2.8022605405
3.8157018338
5.7444233083
1.9525372031
3.7011385684
3.5167160491
-5.1137974831
-5.9735945936
9.5494508631

X1 is Arcsin(mu=4.000000,c=10.000000),



H0: X1~Arcsin(mu,c), mu,c are unknown
mu point estimated value=3.454421
c point estimated value=9.860988 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot12_image.jpg

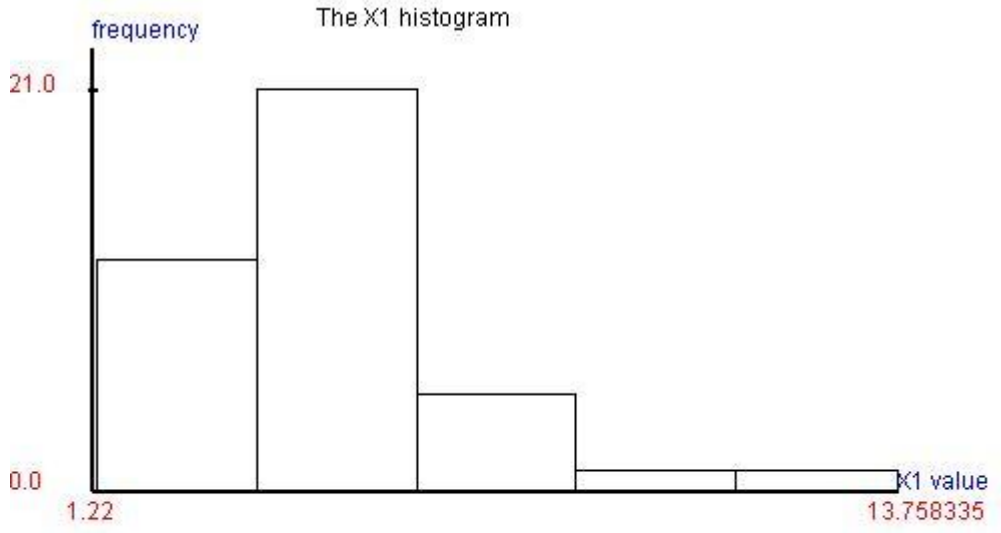


7.2.13)The population distribution is gumbel distribution.

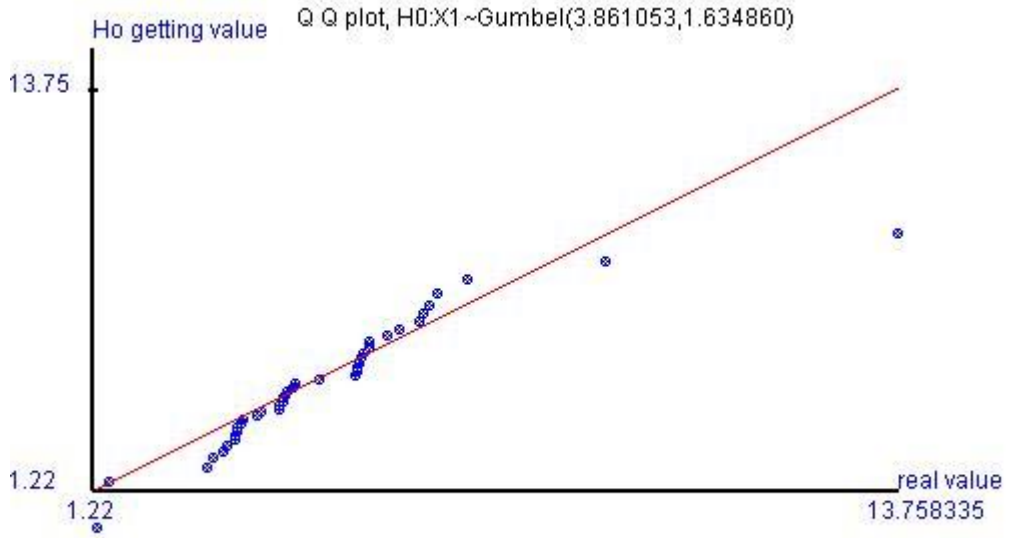
X1 is Gumbel(mu=4.000000,sigma=2.000000),

X1
4.7209404787
9.2044632087
3.2862867537
4.1636958825
1.4187282126
3.4286445802
4.3379776414
3.0697983497
3.7557601348
2.9528482695
4.3044185908
5.3747580136
6.4398687977
5.3012950575
5.3962608070
4.1911665788
4.0882071724
3.5184602159
5.3510013625
6.3431406428
5.2990712157
5.3285904266
3.8211139339
7.0465300480
5.5021089846
3.4157737265
3.4165723127
6.5678447196
4.1717645554
3.5092162267
5.9658564011
5.7770640663
4.2232460143
13.7583353958
3.2116913652
5.4957893146
6.2783491767
3.4301614269
4.0991173240
1.2283739864

X1 is Gumbel(mu=4.000000,sigma=2.000000),



H0: X1~Gumbel(mu,sigma), mu,sigma are unknown
mu point estimated value=3.861053 (MME)
sigma point estimated value=1.634860 (MME)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot13_image.jpg

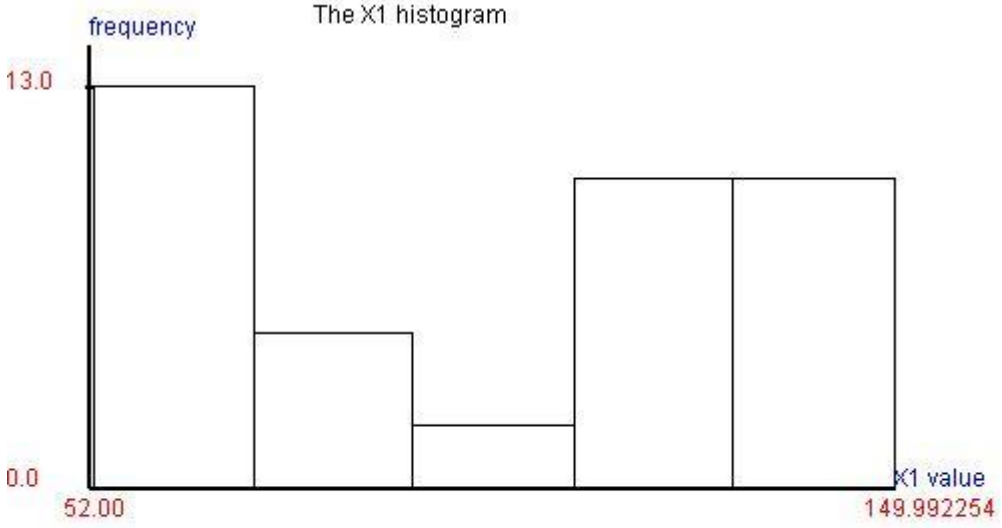


7.2.14)The population distribution is triangular 1 distribution.

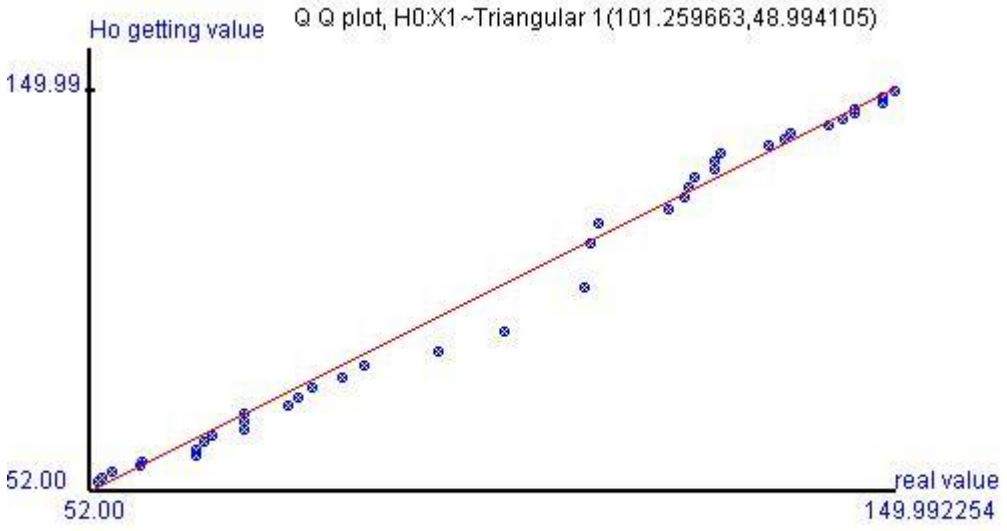
X1 is Triangular1(mu=100.000000,c=50.000000),

X1
94.3741039876
137.2542068689
75.9502733594
145.2710567386
122.3127830843
142.0452749951
64.7183702954
53.0461835381
78.8975074520
70.5575571155
124.9673269435
128.8635897646
145.2334786972
113.7556901981
57.8403045522
124.3424550027
65.6121843550
136.5210349670
57.9981396252
70.6022476670
125.6178167956
82.4792754018
112.2382734289
102.3097890096
54.4014807927
85.2112647536
134.5784187315
52.0040451935
128.1864139528
128.0437853693
143.7699114009
52.6159440221
112.8105885809
77.1964625558
148.5276855772
149.9922543748
70.4045151726
64.6771770318
66.4913908209
148.6662706121

X1 is Triangular1(mu=100.000000,c=50.000000),



H0: X1~Triangular 1(mu,c), mu,c are unknown
mu point estimated value=101.259663
c point estimated value=48.994105 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot14_image.jpg

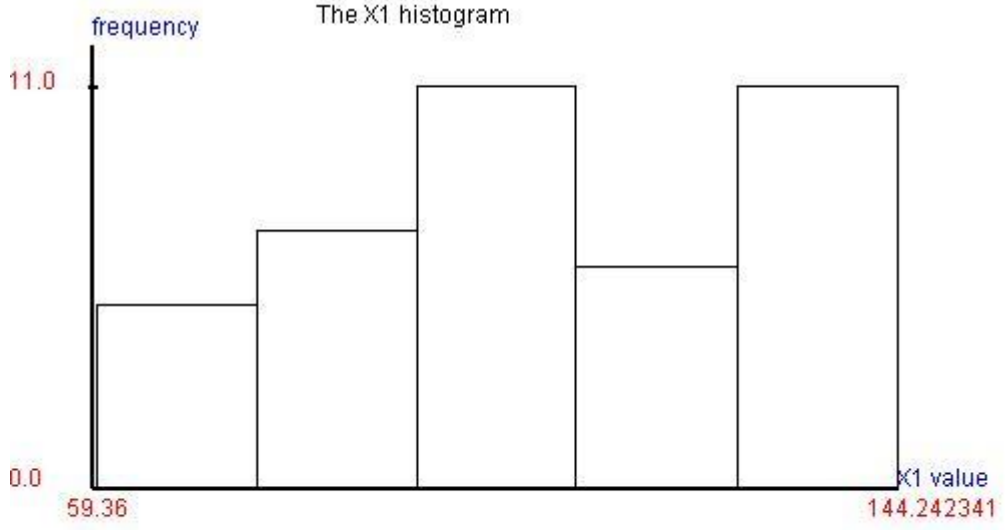


7.2.15)The population distribution is trapezoid distribution.

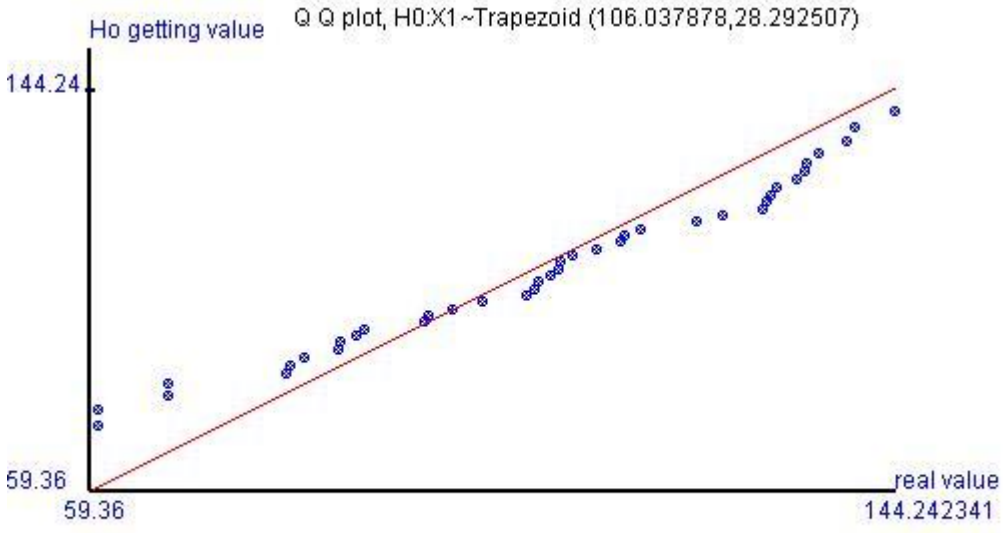
X1 is Trapezoid(mu=100.000000,c=40.000000),

X1
131.8610707019
130.3758506709
110.1522430100
112.6766297248
59.8894576242
81.7399716461
136.3130257173
80.3246231137
130.8428690632
88.1508843491
106.0850376104
123.2532443172
94.9233522097
107.7641285045
126.0701833222
134.8615824520
133.9461975234
105.4056595824
115.6090564462
67.4135185891
108.9841402468
85.2840999081
139.2330683522
87.3039728458
108.6726968784
140.1308247315
134.9416442532
97.3666743422
59.9377938039
79.9040589452
115.3723692412
67.4084289054
144.2423415956
106.5506937166
85.5525239787
100.5609688192
131.2040822205
117.3751130682
59.3648208371
94.4662314881

X1 is Trapezoid(mu=100.000000,c=40.000000),



H0: X1~Trapezoid(mu,c), mu,c are unknown
mu point estimated value=106.037878
c point estimated value=28.292507 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot15_image.jpg

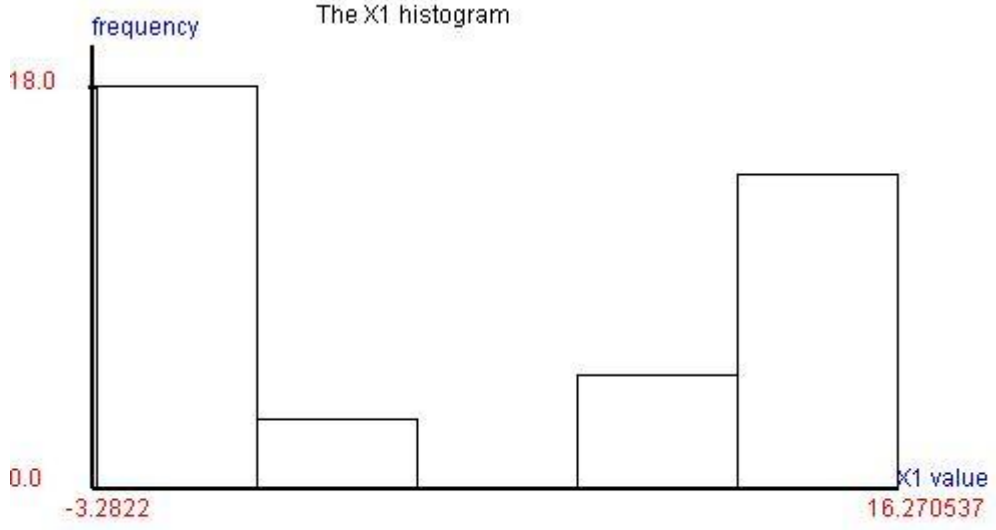


7.2.16)The population distribution is U quadratic distribution.

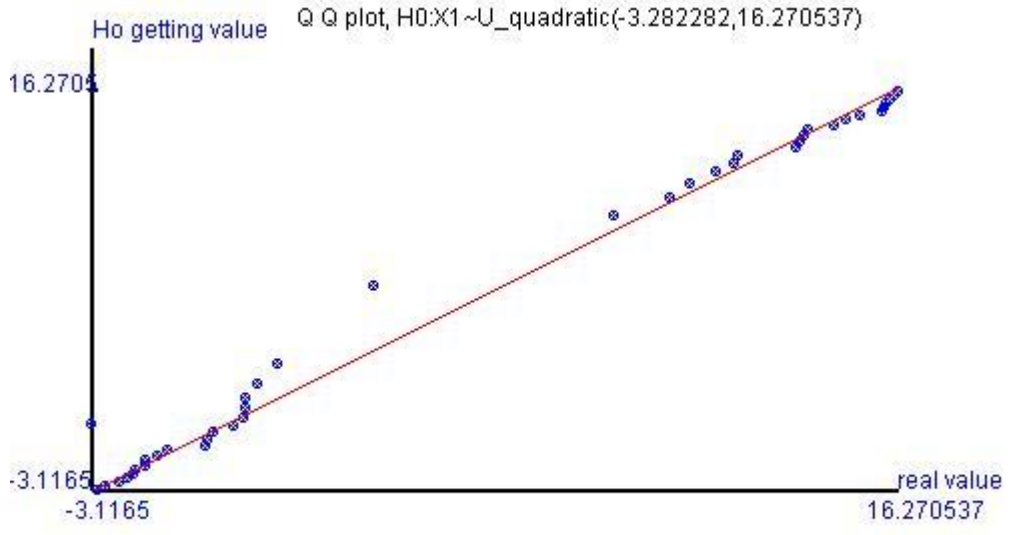
X1 is U-quadratic(a=-3.400000,b=16.300000),

X1
15.3657792783
-2.2261075273
-3.1626059519
14.1283291860
-1.9350075950
-1.9158507583
13.8122732903
0.1909110289
9.3937223891
15.0568218667
12.3037618849
12.4216007340
14.7345876184
16.1873202201
16.0916729847
3.5818647651
15.9507108739
-2.3694770506
-0.4925128014
-1.4126314000
-2.8858263957
-2.5784073116
-0.4355789290
0.5039680350
14.0220853560
11.2535872710
13.9017093528
0.7674415395
15.8856961239
10.7821074195
1.2700407453
15.9978183659
-0.2675950756
16.2705372028
-1.6611519120
-3.2822818535
11.8632114498
0.4825039945
0.4316144249
-2.1526978429

X1 is U-quadratic(a=-3.400000,b=16.300000),



H0: X1~U_quadratic(a,b), a,b are unknown
a point estimated value=-3.282282 (MLE)
b point estimated value=16.270537 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot16_image.jpg

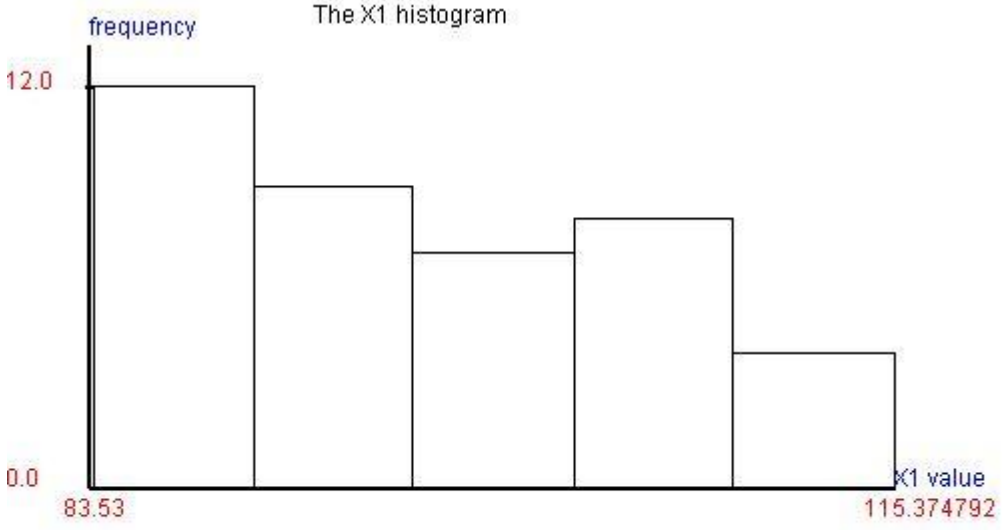


7.2.17)The population distribution is semi circle distribution.

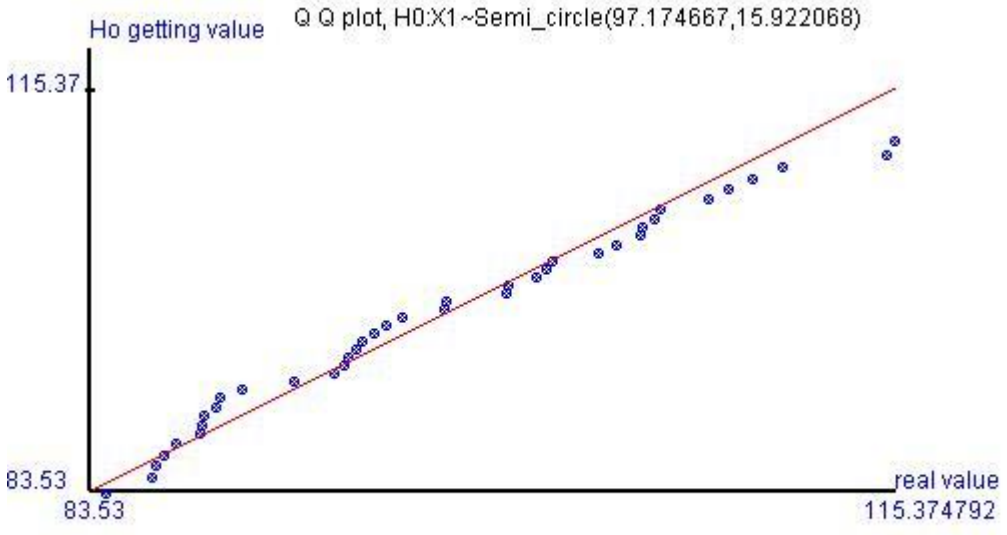
X1 is Semi-circle(mu=100.000000,R=20.000000),

X1
85.9035273067
84.0352661930
103.6691243344
88.5631566652
101.5466510284
101.7622522240
86.0191290781
87.9268386498
86.8035847298
97.5793742745
105.3796054272
115.3747926010
93.9913302114
95.1882076952
99.9568327763
93.5416756219
108.0335457565
93.1255569812
109.7534766923
115.1303743204
88.4618102326
108.7961571970
89.4823162342
86.3602130445
97.4869906302
101.1883956488
104.3331956122
94.2277726329
93.6666349763
106.0956541954
94.7538567869
91.5676090933
83.5306560162
105.3405503179
95.8490189119
110.9912922839
87.8832568417
105.8275086072
87.7799277663
100.0795505685

X1 is Semi-circle(mu=100.000000,R=20.000000),



H0: X1~Semi-circle(mu,R), mu,R are unknown
mu point estimated value=97.174667
R point estimated value=15.922068 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot17_image.jpg

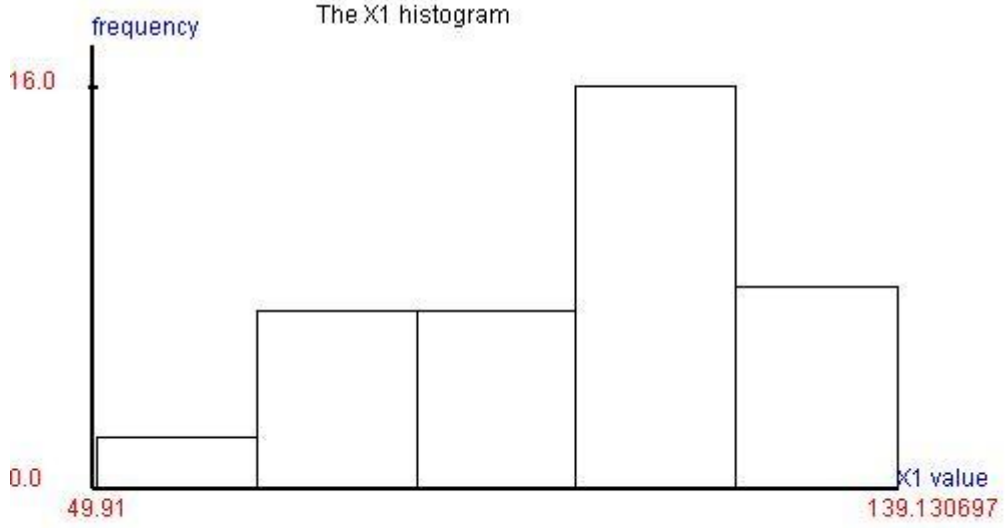


7.2.18)The population distribution is logistic distribution.

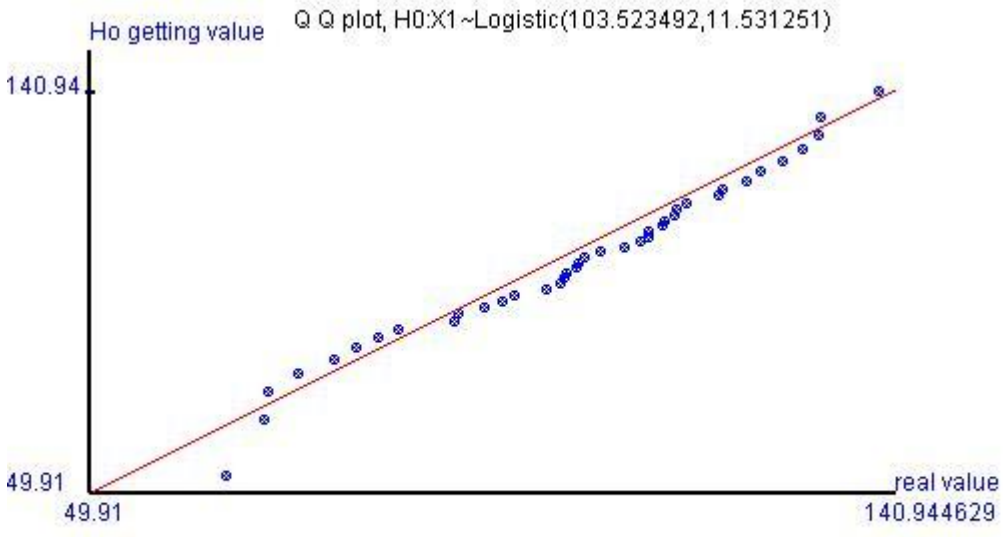
X1 is Logistic(mu=100.000000,sigma=10.000000),

X1
103.5141575826
117.3778796400
69.2610813241
49.9144656307
139.1306978101
107.5806431992
103.0164049403
94.3735272453
79.8612668664
104.8825155154
91.4943197653
128.2139618212
77.2952293444
132.6750006169
121.4655282476
124.2194323213
73.1908920138
114.7096529346
101.3535294208
82.3189332428
105.8314164550
105.1728801451
116.2912070325
113.0981614107
96.5544035852
121.0692251512
130.6965428289
69.7496378662
103.6882378752
125.7181123244
112.9813720568
65.1022279593
112.0514558292
114.9860841116
91.0571192479
110.3236348532
115.9910008120
97.7412324661
132.4636502800
84.5229490467

X1 is Logistic(mu=100.000000,sigma=10.000000),



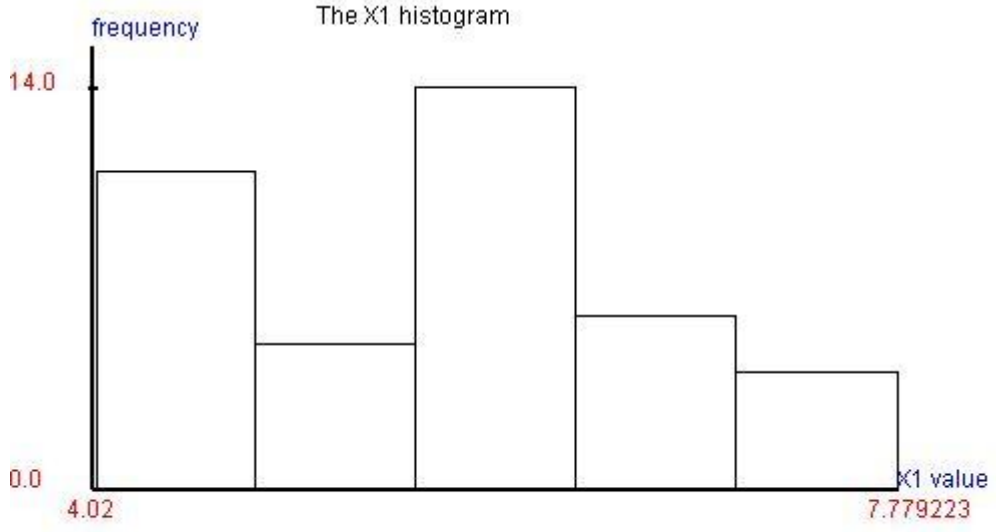
H0: X1~Logisitic(mu,sigma), mu,sigma are unknown
mu point estimated value=103.523492 (MME)
sigma point estimated value=11.531251 (MME)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot18_image.jpg



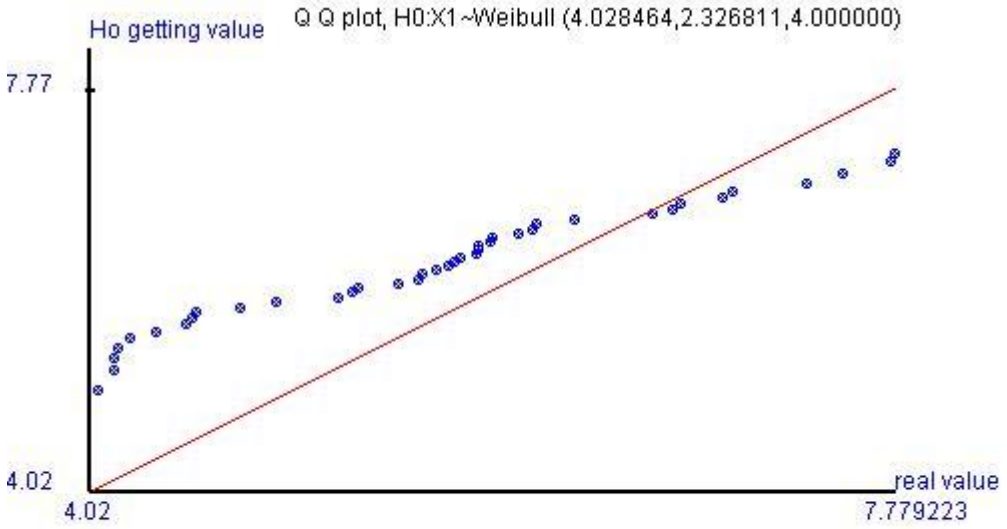
7.2.19)The population distribution is weibull distribution.
The gamma values is supposed to 4.
X1 is Weibull(alpha=2.000000,beta=4.000000,gamma=4.000000),

X1
4.0531012907
5.8349810992
4.1440551884
6.6506334173
6.0255882674
5.8921723795
4.8825847686
5.8946567284
5.7229242507
6.9815886466
7.3685014695
4.0284636263
6.7384572262
6.0841932372
6.7796431795
4.3222151605
4.1297477210
5.5754916475
6.1048696374
4.5140829245
5.5512544488
5.1743970553
4.4957730589
7.7792237549
5.8232854210
5.2412107070
7.7632248538
5.7470750970
5.6324792204
5.4599366328
5.8342202378
5.2681802828
4.1291600867
6.2796326618
5.6925946951
4.4610073000
7.0271888346
4.2062622028
4.7215306064
7.5427072121

X1 is Weibull(alpha=2.000000,beta=4.000000,gamma=4.000000),



H0: X1~Weibull(alpha,beta,gamma=4.000000), alpha,beta are unknown
alpha point estimated value=4.028464 (MLE)
beta point estimated value=2.326811 (MLE)
gamma value=4.000000 (hypothesis value)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot19_image.jpg

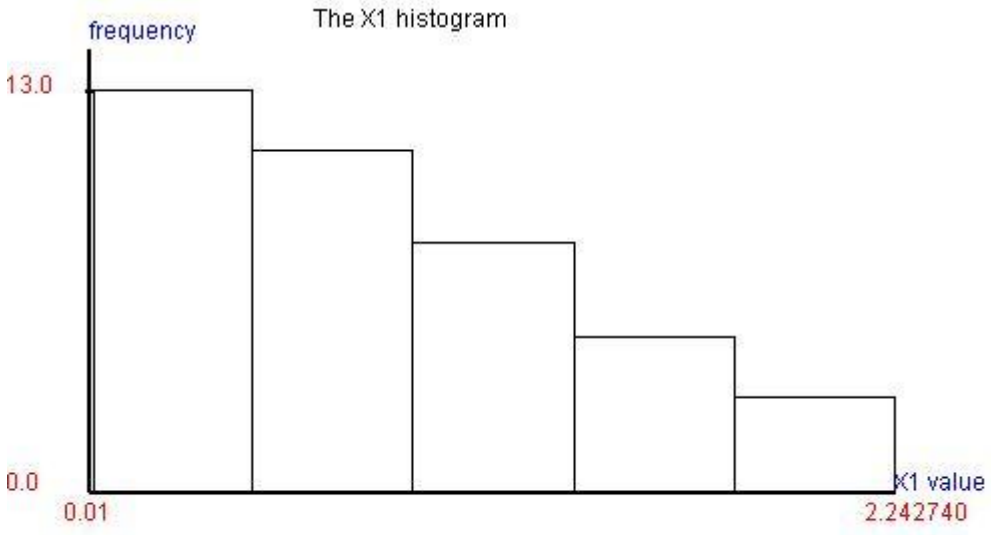


7.2.20)The population distribution is pareto 3 distribution

X1 is Pareto3(lamda=5.000000,c=5.000000),

X1
0.1734084877
0.5787603651
0.5337039216
0.4268702495
0.2670812013
1.5429520263
0.2345312713
0.7602719321
0.6363153788
2.0770231785
0.0180594140
0.4624664713
0.9071174271
0.1484772713
1.2355922876
2.2427408986
1.4818950676
1.3058929370
0.2340273447
1.9555805951
1.6427224053
0.5433613263
0.4380272997
0.7309448063
0.9851372087
1.1168583311
0.1336862563
0.1390204839
0.2237078820
0.4340921218
0.4934600785
1.3970709760
1.2684804603
1.2444709776
0.8231019247
1.1448413029
0.8808942900
1.3528825736
0.4787230000
0.9211672281

X1 is Pareto3(lamda=5.000000,c=5.000000),



H0: X1~Pareto 3(lamda,c), lamda,c are unknown
lamda point estimated value=1.859225 (MLE)
c point estimated value=2.242741 (MLE)
Q Q plot
horizon axis is samples value,
vertical axis is the value in according Ho population distribution.
The Q Q plot images is stored in c:\book_01\QQ_plot20_image.jpg