Problem 1

scenario 1	scenario 2
2.3	2.3
2.15	2.15
3.5	3.5
2.6	2.6
2.75	2.75
2.82	2.82
4.05	4.05
2.25	2.25
2.68	2.68
3	3
4.02	40.2
2.85	2.85
3.38	3.38

結果

average	2.95	5.733077
geomean	2.892048	3.452459
median	2.82	2.82

公式

average	=AVERAGE(A2:A14)	=AVERAGE(B2:B14)
geomean	=GEOMEAN(A2:A14)	=GEOMEAN(B2:B14)
median	=MEDIAN(A2:A14)	=MEDIAN(B2:B14)

Problem 2

Score 1	Score 2
19	19
25	25
26	26
28	28
28	28
33	33
34	34
34	34
34	34
35	35
35	35
36	36
36	36
36	36
36	36
37	37
37	37
37	37
37	37
37	37
38	38
39	39
41	41
41	41
41	41
43	43
43	43
43	43
43	43
44	43

Score 1	Score 2
45	45
45	45
46	46
48	48
49	49
50	50
51	51
51	51
53	53
58	58
59	59
59	59
59	59
62	62
63	63
63	63
63	63
65	65
65	65
70	70
74	74
74	74
85	85
87	87
89	89
91	91
92	92

結果

	C	D	E
17	average	48.98246	48.96491
18	geomean	46.10896	46.09037
19	mode	37	37
20	mode.sngl	37	37
21	mode.mult	37	37
22			43

公式

average	=AVERAGE(A17:A73)	=AVERAGE(B17:B73)
geomean	=GEOMEAN(A17:A73)	=GEOMEAN(B17:B73)
mode	=MODE(A17:A73)	=MODE(B17:B73)
mode.sngl	=MODE.SNGL(A17:A73)	=MODE.SNGL(B17:B73)
mode.mult	=MODE.MULT(A17:A73)	=MODE.MULT(B17:B73)

Problem 3

	F	G	H
2	range	1.9	38.05
3	IQR	0.78	0.78

公式

range	=MAX(A2:A14)-MIN(A2:A14)	=MAX(B2:B14)-MIN(B2:B14)
IQR	=QUARTILE.INC(A2:A14,3)-QUARTILE.INC(A2:A14,1)	=QUARTILE.INC(B2:B14,3)-QUARTILE.INC(B2:B14,1)

Problem 4

	F	G	公式
17	Q1	36	=QUARTILE(A17:A73,1)
18	Q3	59	=QUARTILE(A17:A73,3)

	F	G	公式
19	IQR	23	=G18-G17
20	Variance	313.3747	=VAR.S(A17:A73)
21	STD	17.70239	=STDEV.S(A17:A73)

	F	G	公式
23	median	43	=MEDIAN(A17:A73)
24	STD Q1 apart from median	-0.395427	=(G17-$G$23)/$G$21
25	STD Q3 apart from median	0.9038327	=(G18-$G$23)/$G$21
26	Q1 apart from median	-7	=G17-$G$23
27	Q3 apart from median	16	=G18-$G$23

Problem 5

Problem 1

S1 = [2.3, 2.15,3.5, 2.6,2.75,2.82,4.05,2.25,2.68,3,4.02,2.85,3.38]

公式	答案
mean(S1)	ans =2.9500
geomean(S1)	ans =2.8920
median(S1)	ans =2.8200

S2 = [2.3, 2.15,3.5, 2.6,2.75,2.82,4.05,2.25,2.68,3,40.2,2.85,3.38]

公式	答案
mean(S2)	ans =5.7331
geomean(S2)	ans =3.4525
median(S2)	ans =2.8200

problem 2

公式	答案
mean(Score1)	ans =48.9825

geomean(Score1)	ans =46.1090
mode(Score1)	ans =37
mean(Score2)	ans =48.9649
geomean(Score2)	ans =46.0904
mode(Score2)	ans =37

problem 3

公式	答案
range(S1)	ans =1.9000
range(S2)	ans =38.0500
iqr(S1)	ans =0.8850
iqr(S2)	ans =0.8850

problem 4

公式	答案
quantile(Score1,0.25)	ans =36
quantile(Score1,0.75)	ans =59.7500
iqr(Score1)	ans =23.7500
var(Score1)	ans =313.3747
std(Score1)	ans =17.7024
(Q1-med)/STD	ans =0.3954
(Q3-med)/STD	ans =0.9462
Q3-med	ans =16.7500
Q1-med	ans =-7

Problem 6

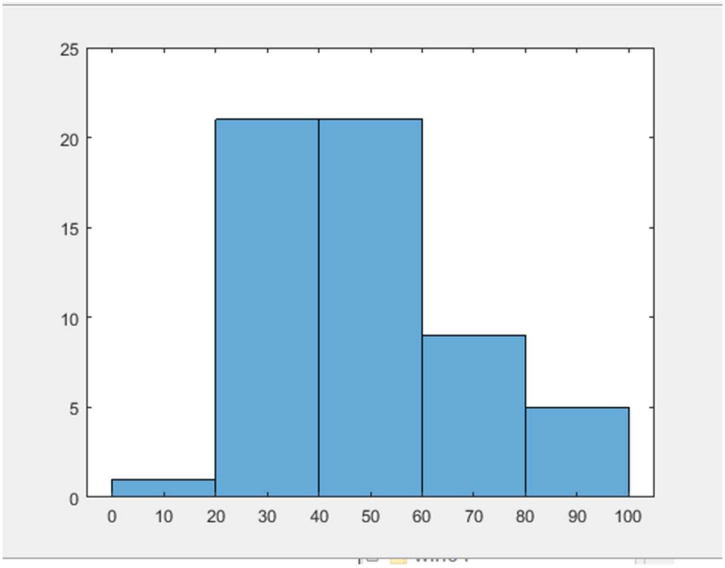
```
>> [M,F] = mode(Score1)

M =

    37


F =

     5
```

```
>> [M,F]=mode(Score2)

M =

    37


F =

     5
```

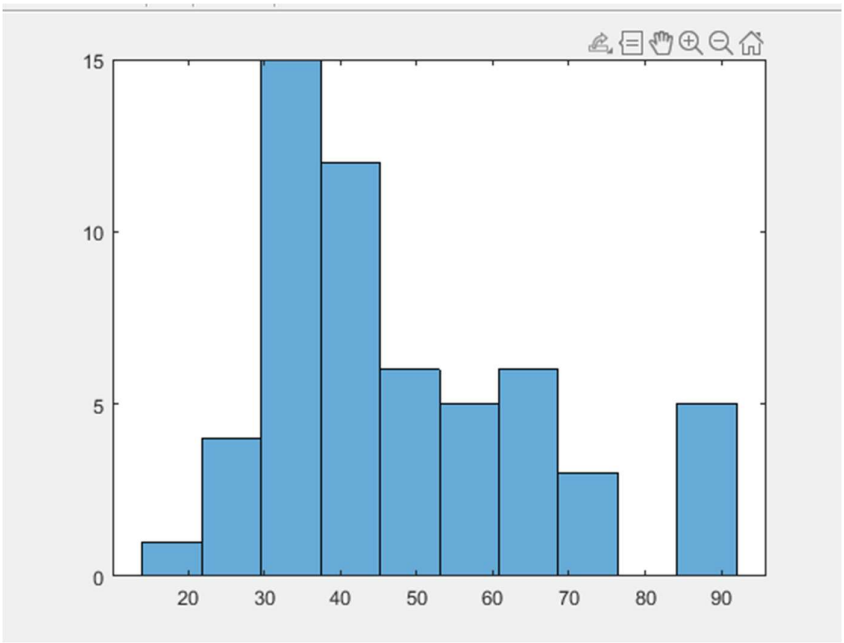
Problem 7

```
>> histogram(Score1,10)
Warning: MATLAB has disabled some a
features by switching to software O
here.
>> histogram(Score2,10)
>> histogram(Score2)
```

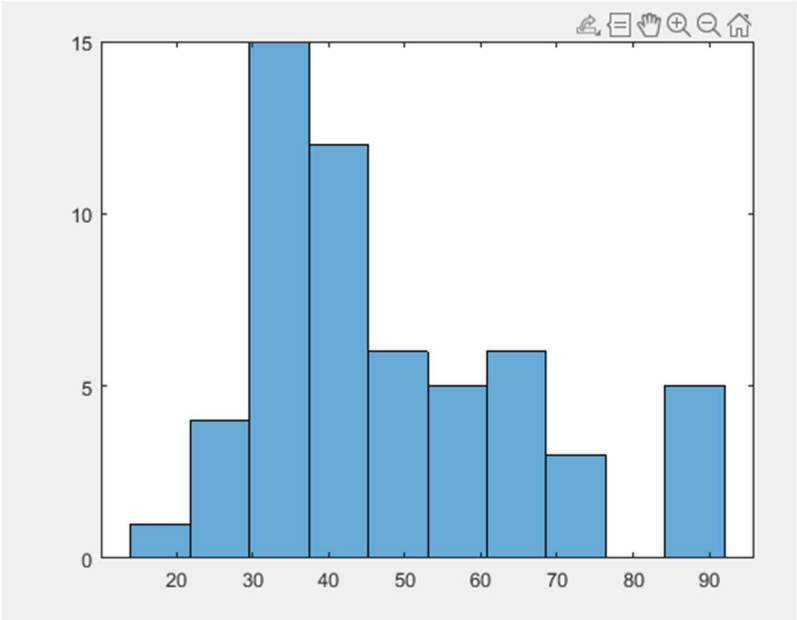
histogram(Score1)



histogram(Score1,10)



histogram(Score2,10)



histogram(Score2)