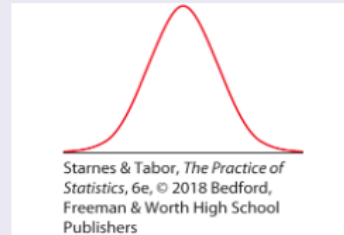


#	IQ	Bins	Frequency	Cumulative %
1	145	LB		
2	139	80	3	5.0%
3	126	90	4	11.7%
4	122	100	14	35.0%
5	125	110	17	63.3%
6	130	120	11	81.7%
7	96	130	9	96.7%
8	110	140	2	100.0%
9	118	More	0	100.0%
10	118	IQ - Descriptive Stats		
11	101	Mean	115.0	
12	142	Standard Error	1.9	
13	134	Median	114.0	
14	124	Mode	110.0	
15	112	Standard Deviation	14.8	
16	109	Sample Variance	219.1	
17	134	Kurtosis	-0.37	
18	113	Skewness	-0.11	
19	81	Range	64	
20	113	Minimum	81	
21	123	Maximum	145	
22	94	Sum	6899	
23	100	Count	60	



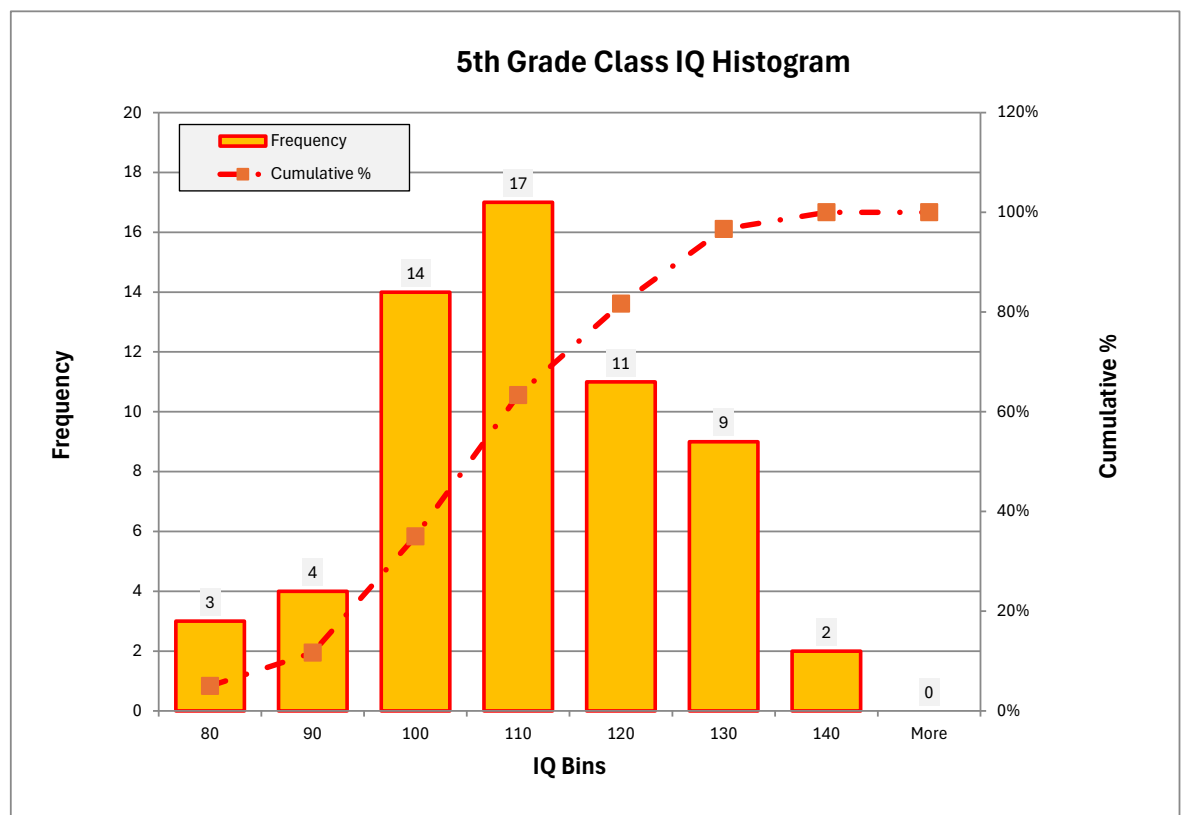
Many people believe that the distribution of IQ scores follows a “bell curve,” like the one shown. But is this really how such scores are distributed? The IQ scores of 60 fifth-grade students chosen at random from one school are shown here.²⁴



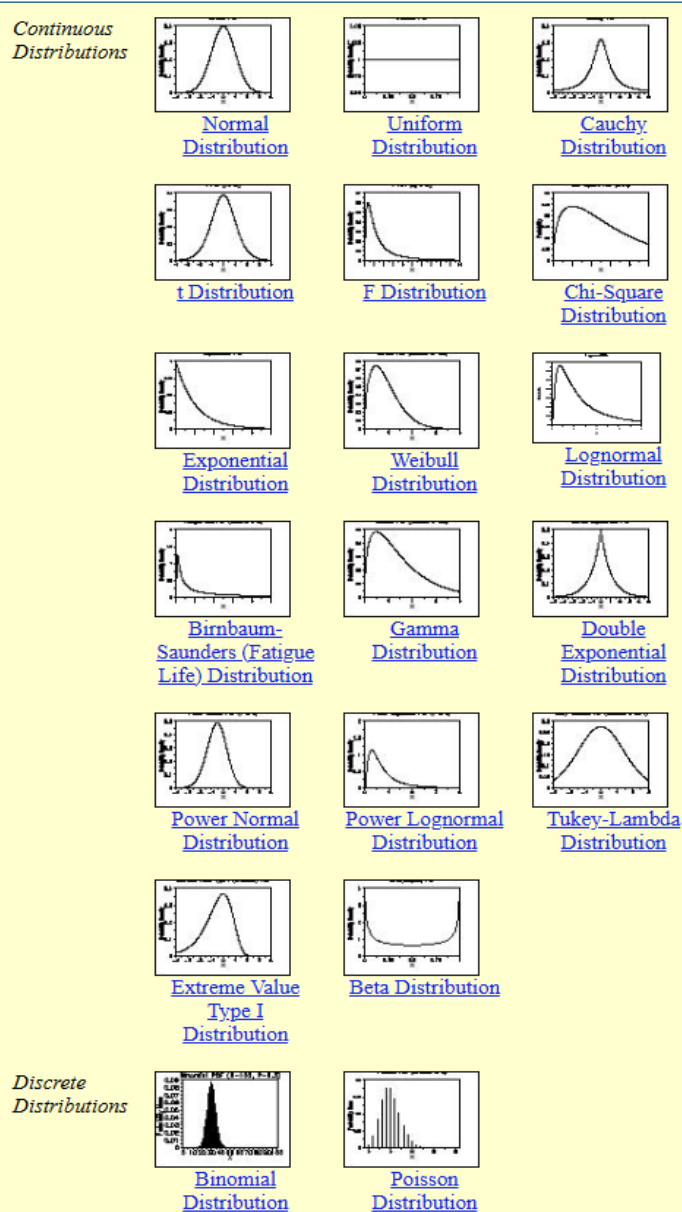
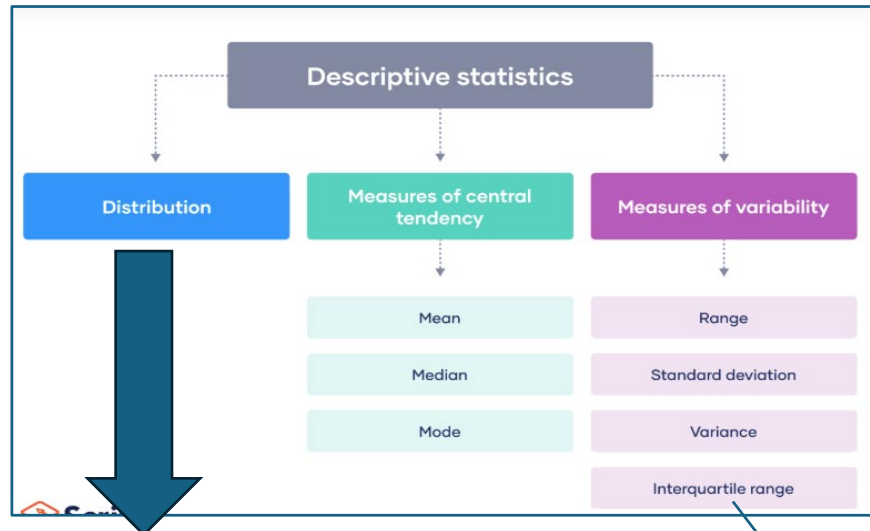
145	139	126	122	125	130	96	110	118	118
101	142	134	124	112	109	134	113	81	113
123	94	100	136	109	131	117	110	127	124
106	124	115	133	116	102	127	117	109	137
117	90	103	114	139	101	122	105	97	89
102	108	110	128	114	112	114	102	82	101

1. Construct a histogram that displays the distribution of IQ scores effectively.
2. Describe what you see. Is the distribution bell-shaped?

24	136
25	109
26	131
27	117
28	110
29	127
30	124
31	106
32	124
33	115
34	133
35	116
36	102
37	127
38	117
39	109
40	137
41	117
42	90
43	103
44	114
45	139
46	101
47	122
48	105
49	97
50	89
51	102
52	108
53	110
54	128
55	114
56	112
57	114
58	102
59	82
60	101



#	IQ	$x - \mu$	$(x - \mu)^2$
1	145	30.017	901.000
2	139	24.017	576.800
3	126	11.017	121.367
4	122	7.017	49.234
5	125	10.017	100.334
6	130	15.017	225.500
7	96	-18.983	360.367
8	110	-4.983	24.834
9	118	3.017	9.100
10	118	3.017	9.100
11	101	-13.983	195.534
12	142	27.017	729.900
13	134	19.017	361.634
14	124	9.017	81.300
15	112	-2.983	8.900
16	109	-5.983	35.800
17	134	19.017	361.634
18	113	-1.983	3.934
19	81	-33.983	1154.867
20	113	-1.983	3.934
21	123	8.017	64.267
22	94	-20.983	440.300
23	100	-14.983	224.500
24	136	21.017	441.700
25	109	-5.983	35.800
26	131	16.017	256.534
27	117	2.017	4.067
28	110	-4.983	24.834
29	127	12.017	144.400
30	124	9.017	81.300
31	106	-8.983	80.700
32	124	9.017	81.300
33	115	0.017	0.000
34	133	18.017	324.600
35	116	1.017	1.034
36	102	-12.983	168.567
37	127	12.017	144.400
38	117	2.017	4.067
39	109	-5.983	35.800
40	137	22.017	484.734
41	117	2.017	4.067
42	90	-24.983	624.167
43	103	-11.983	143.600
44	114	-0.983	0.967
45	139	24.017	576.800
46	101	-13.983	195.534
47	122	7.017	49.234
48	105	-9.983	99.667
49	97	-17.983	323.400
50	89	-25.983	675.134
51	102	-12.983	168.567
52	108	-6.983	48.767
53	110	-4.983	24.834
54	128	13.017	169.434
55	114	-0.983	0.967
56	112	-2.983	8.900
57	114	-0.983	0.967
58	102	-12.983	168.567
59	82	-32.983	1087.900
60	101	-13.983	195.534
114.98		sum =	12924.983
		sum / n =	215.416
		(sum / n) * 0.5 =	14.68



+
outliers