	A	B	C	D	E	F	G	H	I	J
1	class	frequency	mid-value	LCB	UCB	z	P(z < z1)	P(z1 < z < z2)	Expected Freq	p(x-value)
2			=AVERAGE(E4,D4)			=STANDARDIZE(D4,C17,C19)	=NORM.S.DIST(F4,TRUE)	=G5-G4	=B14*H4	=NORM.DIST(D4,C17,C19,TRUE)
3			x							
4	10-20	2	15	10	20	-3.52168072	0.00021441	0.00242787	1.918015429	0.00021441
5	20-30	15	25	20	30	-2.78915629	0.00264228	0.01721855	13.60265243	0.002642278
6	30-40	45	35	30	40	-2.05663187	0.01986083	0.07287286	57.5695569	0.019860825
7	40-50	120	45	40	50	-1.32410744	0.09273368	0.18433124	145.6216815	0.092733682
8	50-60	297	55	50	60	-0.59158302	0.27706492	0.27897696	220.3917991	0.277064924
9	60-70	184	65	60	70	0.14094141	0.55604189	0.2527535	199.6752684	0.556041885
10	70-80	79	75	70	80	0.87346583	0.80879539	0.13706659	108.2826025	0.80879539
11	80-90	32	85	80	90	1.60599026	0.94586198	0.04445774	35.12161668	0.945861975
12	90-100	12	95	90	100	2.33851469	0.99031972	0.00861371	6.804828005	0.990319718
13	100-110	4	105	100	110	3.07103911	0.99893342	0.00099526	0.786256456	0.998933424
14		790		110		3.80356354	0.99992869			0.999928685
15										
16		Symbol	Value	Formula						
17	Mean	μ	58.0759	=SUMPRODUCT(B4:B13,C4:C13)/SUM(B4:B13)						
18	Variance	σ^2	186.361	=SUMPRODUCT(C4:C13,C4:C13,B4:B13)/SUM(B4:B13)-C17*C17						
19	Std. Dev	σ	13.6514	=SQRT(C18)						
20										
21	Probabilities			p(x)	Formula					
22	P(X < 45)	45		0.16907	=NORM.DIST(B22,C17,C19,TRUE)					
23	P(40<X<60)	40	60	0.463308	=NORM.DIST(C23,C17,C19,TRUE)-NORM.DIST(B23,C17,C19,TRUE)					
24	P(X > 60)	60		0.443958	=1-NORM.DIST(B24,C17,C19,TRUE)					