

**Exact Distribution of the Greatest Deviation Correlation Coefficient**

**Sample Sizes 3 to 15**

**Produced by Robert Hollister**

N	x	P(X=x)*D	D
3			6
	-1	1	
	0	4	
	1	1	
4			24
	-1	1	
	-1/2	3	
	0	16	
	1/2	3	
	1	1	
5			120
	-1	1	
	-1/2	51	
	0	16	
	1/2	51	
	1	1	
6			720
	-1	1	
	-2/3	35	
	-1/3	196	
	0	256	
	1/3	196	
	2/3	35	
	1	1	
7			5040
	-1	1	
	-2/3	595	
	-1/3	500	
	0	2,848	
	1/3	500	
	2/3	595	
	1	1	
8			40320
	-1	1	
	-3/4	399	
	-1/2	2,480	
	-1/4	11,772	
	0	11,016	
	1/4	11,772	
	1/2	2,480	
	3/4	399	
9			362880
	-1	1	
	-3/4	6,927	
	-1/2	18,992	
	-1/4	123,660	
	0	63,720	
	1/4	123,660	
	1/2	18,992	
	3/4	6,927	
	1	1	

N	x	P(X=x)*D	D
10			3,628,800
	-1	1	
	-4/5	4,623	
	-3/5	36,672	
	-2/5	479,120	
	-1/5	562,932	
	0	1,462,104	
	1/5	562,932	
	2/5	479,120	
	3/5	36,672	
	4/5	4,623	
	1	1	
11			39,916,800
	-1	1	
	-4/5	80,719	
	-3/5	732,128	
	-2/5	5,128,736	
	-1/5	6,664,068	
	0	14,705,496	
	1/5	6,664,068	
	2/5	5,128,736	
	3/5	732,128	
	4/5	80,719	
	1	1	
12			479,001,600
	-1	1	
	-5/6	53,823	
	-2/3	727,632	
	-1/2	19,046,768	
	-1/3	32,023,332	
	-1/6	146,029,788	
	0	83,238,912	
	1/6	146,029,788	
	1/3	32,023,332	
	1/2	19,046,768	
	2/3	727,632	
	5/6	53,823	
	1	1	
13			6,227,020,800
	-1		
	-5/6	940,863	
	-2/3	28,456,272	
	-1/2	216,133,376	
	-1/3	633,876,372	
	-1/6	1,509,191,388	
	0	1,449,824,256	
	1/6	1,509,191,388	
	1/3	633,876,372	
	1/2	216,133,376	
	2/3	28,456,272	
	5/6	940,863	
	1	1	

N	x	P(X=x)*D	D
14			87,178,291,200
	-1	1	
	-6/7	627,263	
	-5/7	20,168,080	
	-4/7	758,459,648	
	-3/7	2,117,148,516	
	-2/7	13,614,341,004	
	-1/7	11,736,567,360	
	0	30,683,667,456	
	1/7	11,736,567,360	
	2/7	13,614,341,004	
	3/7	2,117,148,516	
	4/7	758,459,648	
	5/7	20,168,080	
	6/7	627,263	
	1	1	
15			1,307,674,368,000
	-1	1	
	-6/7	10,967,359	
	-5/7	1,114,989,392	
	-4/7	9,645,298,832	
	-3/7	57,739,685,652	
	-2/7	150,850,248,588	
	-1/7	269,200,784,448	
	0	330,550,419,456	
	1/7	269,200,784,448	
	2/7	150,850,248,588	
	3/7	57,739,685,652	
	4/7	9,645,298,832	
	5/7	1,114,989,392	
	6/7	10,967,359	
	1	1	