

Coeficientes a_{in} para el contraste de Shapiro-Wilks

$\begin{matrix} i \\ n \end{matrix}$	1	2	3	4	5	6	7	8	9	10	11
2	0.7071										
3	0.7071	0.0000									
4	0.6872	0.1677									
5	0.6646	0.2413	0.0000								
6	0.6431	0.2806	0.0875								
7	0.6233	0.3031	0.1401	0.0000							
8	0.6052	0.3164	0.1743	0.0561							
9	0.5888	0.3244	0.1976	0.0947	0.0000						
10	0.5739	0.3291	0.2141	0.1224	0.0399						
11	0.5601	0.3315	0.2260	0.1429	0.0695	0.0000					
12	0.5475	0.3325	0.2347	0.1586	0.0922	0.0303					
13	0.5359	0.3325	0.2412	0.1707	0.1099	0.0539	0.0000				
14	0.5251	0.3318	0.2495	0.1802	0.1240	0.0727	0.0240				
15	0.5150	0.3306	0.2495	0.1878	0.1353	0.0880	0.0433	0.0000			
16	0.5056	0.3290	0.2521	0.1988	0.1447	0.1005	0.0593	0.0196			
17	0.4968	0.3273	0.2540	0.1988	0.1524	0.1109	0.0725	0.0359	0.0000		
18	0.4886	0.3253	0.2553	0.2027	0.1587	0.1197	0.0837	0.0496	0.0163		
19	0.4808	0.3232	0.2561	0.2059	0.1641	0.1271	0.0932	0.0612	0.0303	0.0000	
20	0.4734	0.3211	0.2565	0.2085	0.1686	0.1334	0.1013	0.0711	0.0422	0.0140	
21	0.4643	0.3185	0.2578	0.2119	0.1736	0.1339	0.1092	0.0804	0.0530	0.0263	0.0000
22	0.4590	0.3156	0.2571	0.2131	0.1764	0.1443	0.1150	0.0878	0.0618	0.0368	0.0122
23	0.4542	0.3126	0.2563	0.2139	0.1787	0.1480	0.1201	0.0941	0.0696	0.0459	0.0228
24	0.4493	0.3098	0.2554	0.2145	0.1807	0.1512	0.1245	0.0997	0.0764	0.0539	0.0321
25	0.4450	0.3069	0.2543	0.2148	0.1822	0.1539	0.1283	0.1046	0.0823	0.0610	0.0403
26	0.4407	0.3043	0.2533	0.2151	0.1836	0.1563	0.1316	0.1089	0.0876	0.0672	0.0476
27	0.4366	0.3018	0.2522	0.2152	0.1848	0.1584	0.1346	0.1128	0.0923	0.0728	0.0540
28	0.4328	0.2992	0.2510	0.2151	0.1857	0.1601	0.1372	0.1162	0.0965	0.0778	0.0598
29	0.4291	0.2968	0.2499	0.2150	0.1864	0.1616	0.1395	0.1192	0.1002	0.0822	0.0650
30	0.4254	0.2944	0.2487	0.2148	0.1870	0.1630	0.1415	0.1219	0.1036	0.0862	0.0697
31	0.4220	0.2921	0.2475	0.2145	0.1874	0.1641	0.1433	0.1243	0.1066	0.0899	0.0739
32	0.4188	0.2898	0.2463	0.2141	0.1878	0.1651	0.1449	0.1265	0.1093	0.0931	0.0777
33	0.4156	0.2876	0.2451	0.2137	0.1880	0.1660	0.1463	0.1284	0.1118	0.0961	0.0812
34	0.4127	0.2854	0.2439	0.2132	0.1882	0.1667	0.1475	0.1301	0.1140	0.0988	0.0844
35	0.4096	0.2834	0.2427	0.2127	0.1883	0.1673	0.1487	0.1317	0.1160	0.1013	0.0873
36	0.4068	0.2813	0.2415	0.2121	0.1883	0.1678	0.1496	0.1331	0.1179	0.1036	0.0900
37	0.4040	0.2794	0.2403	0.2116	0.1883	0.1683	0.1505	0.1344	0.1196	0.1056	0.0924
38	0.4015	0.2774	0.2391	0.2110	0.1881	0.1686	0.1513	0.1356	0.1211	0.1075	0.0947
39	0.3989	0.2755	0.2380	0.2104	0.1880	0.1689	0.1520	0.1366	0.1225	0.1092	0.0967
40	0.3964	0.2737	0.2368	0.2098	0.1878	0.1691	0.1526	0.1376	0.1237	0.1108	0.0986
41	0.3940	0.2719	0.2357	0.2091	0.1876	0.1693	0.1531	0.1384	0.1249	0.1123	0.1004
42	0.3917	0.2701	0.2345	0.2085	0.1874	0.1694	0.1535	0.1392	0.1259	0.1136	0.1020
43	0.3894	0.2684	0.2334	0.2078	0.1871	0.1695	0.1539	0.1398	0.1269	0.1149	0.1035
44	0.3872	0.2667	0.2323	0.2072	0.1868	0.1695	0.1542	0.1405	0.1278	0.1160	0.1049
45	0.3850	0.2651	0.2313	0.2065	0.1865	0.1695	0.1545	0.1410	0.1286	0.1170	0.1062
46	0.3830	0.2635	0.2302	0.2058	0.1862	0.1695	0.1548	0.1415	0.1293	0.1180	0.1073
47	0.3808	0.2620	0.2291	0.2052	0.1859	0.1695	0.1550	0.1420	0.1300	0.1189	0.1085
48	0.3789	0.2604	0.2281	0.2045	0.1855	0.1693	0.1551	0.1423	0.1306	0.1197	0.1095
49	0.3770	0.2589	0.2271	0.2038	0.1851	0.1692	0.1553	0.1427	0.1312	0.1205	0.1105
50	0.3751	0.2574	0.2260	0.2032	0.1847	0.1691	0.1554	0.1430	0.1317	0.1212	0.1113

Coefficientes a_{in} para el contraste de Shapiro-Wilks

$\begin{matrix} i \\ n \end{matrix}$	12	13	14	15	16	17	18	19	20	21	22
24	0.0107										
25	0.0200	0.0000									
26	0.0284	0.0094									
27	0.0358	0.0178	0.0000								
28	0.0424	0.0253	0.0084								
29	0.0483	0.0320	0.0159	0.0000							
30	0.0537	0.0381	0.0227	0.0076							
31	0.0585	0.0435	0.0289	0.0144	0.0000						
32	0.0629	0.0485	0.0344	0.0206	0.0068						
33	0.0669	0.0530	0.0395	0.0262	0.0187	0.0000					
34	0.0706	0.0572	0.0441	0.0314	0.0187	0.0062					
35	0.0739	0.0610	0.0484	0.0361	0.0239	0.0119	0.0000				
36	0.0770	0.0645	0.0523	0.0404	0.0287	0.0172	0.0057				
37	0.0798	0.0677	0.0559	0.0444	0.0331	0.0220	0.0110	0.0000			
38	0.0824	0.0706	0.0592	0.0481	0.0372	0.0264	0.0158	0.0053			
39	0.0848	0.0733	0.0622	0.0515	0.0409	0.0305	0.0203	0.0101	0.0000		
40	0.0870	0.0759	0.0651	0.0546	0.0444	0.0343	0.0244	0.0146	0.0049		
41	0.0891	0.0782	0.0677	0.0575	0.0476	0.0379	0.0283	0.0188	0.0094	0.0000	
42	0.0909	0.0804	0.0701	0.0602	0.0506	0.0411	0.0318	0.0227	0.0136	0.0045	
43	0.0927	0.0824	0.0724	0.0628	0.0534	0.0442	0.0352	0.0263	0.0175	0.0087	0.0000
44	0.0943	0.0842	0.0745	0.0651	0.0560	0.0471	0.0383	0.0296	0.0211	0.0126	0.0042
45	0.0959	0.0860	0.0765	0.0673	0.0584	0.0497	0.0412	0.0328	0.0245	0.0163	0.0081
46	0.0972	0.0876	0.0783	0.0694	0.0607	0.0522	0.0439	0.0357	0.0277	0.0197	0.0118
47	0.0986	0.0892	0.0801	0.0713	0.0628	0.0546	0.0465	0.0385	0.0307	0.0229	0.0153
48	0.0998	0.0906	0.0817	0.0731	0.0648	0.0568	0.0489	0.0411	0.0335	0.0259	0.0185
49	0.1010	0.0919	0.0832	0.0748	0.0667	0.0588	0.0511	0.0436	0.0361	0.0288	0.0215
50	0.1020	0.0932	0.0846	0.0764	0.0685	0.0608	0.0532	0.0459	0.0386	0.0314	0.0244

$\begin{matrix} i \\ n \end{matrix}$	23	24	25
45	0.0000		
46	0.0039		
47	0.0076	0.0000	
48	0.0111	0.0037	
49	0.0143	0.0071	0.0000
50	0.0174	0.0104	0.0035

Niveles de significación para el contraste de Shapiro-Wilks.

n	0.01	0.02	0.05	0.1	0.5	0.9	0.95	0.98	0.99
3	0.753	0.756	0.767	0.789	0.959	0.998	0.999	1.000	1.000
4	0.687	0.707	0.748	0.792	0.935	0.987	0.992	0.996	0.997
5	0.686	0.715	0.762	0.806	0.927	0.979	0.986	0.991	0.993
6	0.713	0.743	0.788	0.826	0.927	0.974	0.981	0.986	0.989
7	0.730	0.760	0.803	0.838	0.928	0.972	0.979	0.985	0.988
8	0.749	0.778	0.818	0.851	0.932	0.972	0.978	0.984	0.987
9	0.764	0.791	0.829	0.859	0.935	0.972	0.978	0.984	0.986
10	0.781	0.806	0.842	0.869	0.938	0.972	0.978	0.983	0.986
11	0.792	0.817	0.850	0.876	0.940	0.973	0.979	0.984	0.986
12	0.805	0.828	0.859	0.883	0.943	0.973	0.979	0.984	0.986
13	0.814	0.837	0.866	0.889	0.945	0.974	0.979	0.984	0.986
14	0.825	0.846	0.874	0.895	0.947	0.975	0.980	0.984	0.986
15	0.835	0.855	0.881	0.901	0.950	0.975	0.980	0.984	0.987
16	0.844	0.863	0.887	0.906	0.952	0.976	0.981	0.985	0.987
17	0.851	0.869	0.892	0.910	0.954	0.977	0.981	0.985	0.987
18	0.858	0.874	0.897	0.914	0.956	0.978	0.982	0.986	0.988
19	0.863	0.879	0.901	0.917	0.957	0.978	0.982	0.986	0.988
20	0.868	0.884	0.905	0.920	0.959	0.979	0.983	0.986	0.988
21	0.873	0.888	0.908	0.923	0.960	0.980	0.983	0.987	0.989
22	0.878	0.892	0.911	0.926	0.961	0.980	0.984	0.987	0.989
23	0.881	0.895	0.914	0.928	0.962	0.981	0.984	0.987	0.989
24	0.884	0.898	0.916	0.930	0.963	0.981	0.984	0.987	0.989
25	0.888	0.901	0.918	0.931	0.964	0.981	0.985	0.988	0.989
26	0.891	0.904	0.920	0.933	0.965	0.982	0.985	0.988	0.989
27	0.894	0.906	0.923	0.935	0.965	0.982	0.985	0.988	0.990
28	0.896	0.908	0.924	0.936	0.966	0.982	0.985	0.988	0.990
29	0.898	0.910	0.926	0.937	0.966	0.982	0.985	0.988	0.990
30	0.900	0.912	0.927	0.939	0.967	0.983	0.985	0.988	0.990
31	0.902	0.914	0.929	0.940	0.967	0.983	0.986	0.988	0.990
32	0.904	0.915	0.930	0.941	0.968	0.983	0.986	0.988	0.990
33	0.906	0.917	0.931	0.942	0.968	0.983	0.986	0.989	0.990
34	0.908	0.919	0.933	0.943	0.969	0.983	0.986	0.989	0.990
35	0.910	0.920	0.934	0.944	0.969	0.984	0.986	0.989	0.990
36	0.912	0.922	0.935	0.945	0.970	0.984	0.986	0.989	0.990
37	0.914	0.924	0.936	0.946	0.970	0.984	0.987	0.989	0.990
38	0.916	0.925	0.938	0.947	0.971	0.984	0.987	0.989	0.990
39	0.917	0.927	0.939	0.948	0.971	0.984	0.987	0.989	0.991
40	0.919	0.928	0.940	0.949	0.972	0.985	0.987	0.989	0.991
41	0.920	0.929	0.941	0.950	0.972	0.985	0.987	0.989	0.991
42	0.922	0.930	0.942	0.951	0.972	0.985	0.987	0.989	0.991
43	0.923	0.932	0.943	0.951	0.973	0.985	0.987	0.990	0.991
44	0.924	0.933	0.944	0.952	0.973	0.985	0.987	0.990	0.991
45	0.926	0.934	0.945	0.953	0.973	0.985	0.988	0.990	0.991
46	0.927	0.935	0.945	0.953	0.974	0.985	0.988	0.990	0.991
47	0.928	0.936	0.946	0.954	0.974	0.985	0.988	0.990	0.991
48	0.929	0.937	0.947	0.954	0.974	0.985	0.988	0.990	0.991
49	0.929	0.937	0.947	0.955	0.974	0.985	0.988	0.990	0.991
50	0.930	0.938	0.947	0.955	0.974	0.985	0.988	0.990	0.991

Límites de significación para el test de Durbin-Watson usando un regresor.

	$\alpha = 0.01$	$\alpha = 0.025$	$\alpha = 0.05$
n	(d_l, d_u)	(d_l, d_u)	(d_l, d_u)
15	(0.813, 1.072)	(0.949, 1.222)	(1.077, 1.361)
16	(0.845, 1.088)	(0.980, 1.235)	(1.106, 1.371)
17	(0.876, 1.103)	(1.009, 1.249)	(1.133, 1.381)
18	(0.903, 1.118)	(1.036, 1.261)	(1.157, 1.391)
19	(0.929, 1.133)	(1.061, 1.274)	(1.181, 1.401)
20	(0.953, 1.148)	(1.083, 1.286)	(1.197, 1.410)
21	(0.976, 1.161)	(1.104, 1.298)	(1.221, 1.420)
22	(0.998, 1.174)	(1.124, 1.300)	(1.240, 1.429)
23	(1.018, 1.187)	(1.143, 1.319)	(1.257, 1.437)
24	(1.037, 1.199)	(1.161, 1.329)	(1.273, 1.446)
25	(1.056, 1.211)	(1.178, 1.340)	(1.288, 1.454)
26	(1.072, 1.222)	(1.193, 1.349)	(1.302, 1.461)
27	(1.089, 1.233)	(1.209, 1.358)	(1.316, 1.469)
28	(1.104, 1.244)	(1.223, 1.367)	(1.328, 1.476)
29	(1.119, 1.256)	(1.230, 1.375)	(1.341, 1.483)
30	(1.133, 1.263)	(1.249, 1.383)	(1.352, 1.489)
31	(1.147, 1.273)	(1.262, 1.391)	(1.363, 1.496)
32	(1.160, 1.282)	(1.272, 1.398)	(1.373, 1.502)
33	(1.172, 1.291)	(1.284, 1.406)	(1.384, 1.509)
34	(1.185, 1.299)	(1.294, 1.413)	(1.393, 1.514)
35	(1.195, 1.307)	(1.305, 1.420)	(1.402, 1.519)
36	(1.206, 1.315)	(1.314, 1.426)	(1.410, 1.524)
37	(1.216, 1.322)	(1.324, 1.433)	(1.419, 1.530)
38	(1.227, 1.330)	(1.333, 1.439)	(1.427, 1.535)
39	(1.237, 1.337)	(1.342, 1.445)	(1.435, 1.539)
40	(1.246, 1.344)	(1.350, 1.450)	(1.442, 1.544)
45	(1.288, 1.375)	(1.388, 1.477)	(1.475, 1.566)
50	(1.324, 1.403)	(1.420, 1.500)	(1.503, 1.585)
55	(1.356, 1.427)	(1.447, 1.520)	(1.528, 1.602)
60	(1.383, 1.448)	(1.471, 1.538)	(1.549, 1.616)
65	(1.407, 1.468)	(1.492, 1.554)	(1.567, 1.630)
70	(1.429, 1.485)	(1.511, 1.569)	(1.583, 1.641)
75	(1.448, 1.501)	(1.529, 1.582)	(1.598, 1.652)
80	(1.466, 1.515)	(1.544, 1.594)	(1.611, 1.662)
85	(1.482, 1.528)	(1.557, 1.604)	(1.624, 1.671)
90	(1.497, 1.540)	(1.570, 1.615)	(1.634, 1.680)
95	(1.510, 1.551)	(1.582, 1.624)	(1.645, 1.687)
100	(1.523, 1.562)	(1.593, 1.633)	(1.654, 1.695)

**TABLAS DE LOS CINCO PRIMEROS POLINOMIOS ORTOGONALES (DATOS
EQUIDISTANTES) $n = 3, \dots, 19$.**

$$P_0(z) = 1 \quad ; \quad P_1(z) = \lambda_1 z$$

$$P_2(z) = \lambda_2 \left\{ z^2 - \frac{1}{12}(n^2 - 1) \right\}$$

$$P_3(z) = \lambda_3 \left\{ z^3 - \frac{1}{20}(3n^2 - 7)z \right\}$$

$$P_4(z) = \lambda_4 \left\{ z^4 - \frac{1}{14}(3n^2 - 13)z^2 + \frac{3}{560}(n^2 - 1)(n^2 - 9) \right\}$$

$$P_5(z) = \lambda_5 \left\{ z^5 - \frac{5}{18}(n^2 - 7)z^3 + \frac{1}{1008}(15n^4 - 230n^2 + 407)z \right\}$$

	$n = 3$	
	P_1	P_2
	0	-2
	1	1
A_{ii}	2	6
λ_i	1	3

	$n = 4$		
	P_1	P_2	P_3
	1	-1	-3
	3	1	1
A_{ii}	20	4	20
λ_i	2	1	$\frac{10}{3}$

$n = 5$				
	P_1	P_2	P_3	P_4
	0	-2	0	6
	1	-1	-2	-4
	2	2	1	1
A_{ii}	10	14	10	70
λ_i	1	1	$\frac{5}{6}$	$\frac{35}{12}$

		$n = 6$				
		P_1	P_2	P_3	P_4	P_5
		1	-4	-4	2	10
		3	-1	-7	-3	-5
		5	5	5	1	1
A_{ii}		70	84	180	28	252
λ_i		2	$\frac{3}{2}$	$\frac{5}{3}$	$\frac{7}{12}$	$\frac{21}{10}$

$n = 7$					
	P_1	P_2	P_3	P_4	P_5
	0	-4	0	6	0
	1	-3	-1	1	5
	2	0	-1	-7	-4
	3	5	1	3	1
A_{ii}	28	84	6	154	84
λ_i	1	1	$\frac{1}{6}$	$\frac{7}{12}$	$\frac{7}{20}$

$n = 8$					
	P_1	P_2	P_3	P_4	P_5
	1	-5	-3	9	15
	3	-3	-7	-3	17
	5	1	-5	-13	-23
	7	7	7	7	7
A_{ii}	168	168	264	616	2184
λ_i	2	1	$\frac{2}{3}$	$\frac{7}{12}$	$\frac{7}{10}$

$n = 9$					
	P_1	P_2	P_3	P_4	P_5
	0	-20	0	18	0
	1	-17	-9	9	9
	2	-8	-13	-11	4
	3	7	-7	-21	-11
	4	28	14	14	4
A_{ii}	60	2772	990	2002	468
λ_i	1	3	$\frac{5}{6}$	$\frac{7}{12}$	$\frac{3}{20}$

$n = 10$					
	P_1	P_2	P_3	P_4	P_5
	1	-4	-12	18	6
	3	-3	-31	3	11
	5	-1	-35	-17	1
	7	2	-14	-22	-14
	9	6	42	18	6
A_{ii}	330	132	8580	2860	780
λ_i	2	$\frac{1}{2}$	$\frac{5}{3}$	$\frac{5}{12}$	$\frac{1}{10}$

$n = 11$					
	P_1	P_2	P_3	P_4	P_5
	0	-10	0	6	0
	1	-9	-14	4	4
	2	-6	-23	-1	4
	3	-1	-22	-6	-1
	4	6	-6	-6	-6
	5	15	30	6	3
A_{ii}	110	858	4290	286	156
λ_i	1	1	$\frac{5}{6}$	$\frac{1}{12}$	$\frac{1}{40}$

$n = 12$					
	P_1	P_2	P_3	P_4	P_5
	1	-35	-7	28	20
	3	-29	-19	12	44
	5	-17	-25	-13	29
	7	1	-21	-33	-21
	9	25	-3	-27	-57
	11	55	33	33	33
A_{ii}	572	12012	5148	8008	15912
λ_i	2	3	$\frac{2}{3}$	$\frac{7}{24}$	$\frac{3}{20}$

$n = 13$					
	P_1	P_2	P_3	P_4	P_5
	0	-14	0	84	0
	1	-13	-4	64	20
	2	-10	-7	11	26
	3	-5	-8	-54	11
	4	2	-6	-96	-18
	5	11	0	-66	-33
	6	22	11	99	22
A_{ii}	182	2002	572	68068	6188
λ_i	1	1	$\frac{1}{6}$	$\frac{7}{12}$	$\frac{7}{120}$

$n = 14$

	P_1	P_2	P_3	P_4	P_5
	1	-8	-24	108	60
	3	-7	-67	63	145
	5	-5	-95	-13	139
	7	-2	-98	-92	28
	9	2	-66	-132	-132
	11	7	11	-77	-187
	13	13	143	143	143
A_{ii}	910	728	97240	136136	235144
λ_i	2	$\frac{1}{2}$	$\frac{5}{3}$	$\frac{7}{12}$	$\frac{7}{30}$

 $n = 15$

	P_1	P_2	P_3	P_4	P_5
	0	-56	0	756	0
	1	-53	-27	621	675
	2	-44	-49	251	1000
	3	-29	-61	-249	751
	4	-8	-58	-704	-44
	5	19	-35	-869	-979
	6	52	13	-429	-1144
	7	91	91	1001	1001
A_{ii}	280	37128	39780	6466460	10581480
λ_i	1	3	$\frac{5}{6}$	$\frac{35}{12}$	$\frac{21}{20}$

 $n = 16$

	P_1	P_2	P_3	P_4	P_5
	1	-21	-63	189	45
	3	-19	-179	129	115
	5	-15	-265	23	131
	7	-9	-301	-101	77
	9	-1	-267	-201	-33
	11	9	-143	-221	-143
	13	21	91	-91	-143
	15	35	455	273	143
A_{ii}	1360	5712	1007760	470288	201552
λ_i	2	1	$\frac{10}{3}$	$\frac{7}{12}$	$\frac{1}{10}$

 $n = 17$

	P_1	P_2	P_3	P_4	P_5
	0	-24	0	36	0
	1	-23	-7	31	55
	2	-20	-13	17	88
	3	-15	-17	-3	83
	4	-8	-18	-24	36
	5	1	-15	-39	-39
	6	12	-7	-39	-104
	7	25	7	-13	-91
	8	40	28	52	104
A_{ii}	408	7752	3876	16796	100776
λ_i	1	1	$\frac{1}{6}$	$\frac{1}{12}$	$\frac{1}{20}$

 $n = 18$

z_i	P_1	P_2	P_3	P_4	P_5
1	1	-40	-8	44	220
3	3	-37	-23	33	583
5	5	-31	-35	13	733
7	7	-22	-42	-12	588
9	9	-10	-42	-36	156
11	11	5	-33	-51	-429
13	13	23	-13	-47	-871
15	15	44	20	-12	-676
17	17	68	68	68	884
A_{ii}	1938	23256	23256	28424	6953544
λ_i	2	$\frac{3}{2}$	$\frac{1}{3}$	$\frac{1}{12}$	$\frac{3}{10}$

 $n = 19$

	P_1	P_2	P_3	P_4	P_5
	0	-30	0	396	0
	1	-29	-44	352	44
	2	-26	-83	227	74
	3	-21	-112	42	79
	4	-14	-126	-168	54
	5	-5	-120	-354	3
	6	6	-89	-453	-58
	7	19	-28	-388	-98
	8	34	68	-68	-68
	9	51	204	612	102
A_{ii}	570	13566	213180	2288132	89148
λ_i	1	1	$\frac{5}{6}$	$\frac{7}{12}$	$\frac{1}{40}$