

Table Critical values for the rank sum difference test (two-sided)**Level of significance $\alpha = 0.01$**

n	k							
	3	4	5	6	7	8	9	10
1	4.1	5.7	7.3	8.9	10.5	12.2	13.9	15.6
2	10.9	15.3	19.7	24.3	28.9	33.6	38.3	43.1
3	19.5	27.5	35.7	44.0	52.5	61.1	69.8	78.6
4	29.7	41.9	54.5	67.3	80.3	93.6	107.0	120.6
5	41.2	58.2	75.8	93.6	111.9	130.4	149.1	168.1
6	53.9	76.3	99.3	122.8	146.7	171.0	195.7	220.6
7	67.6	95.8	124.8	154.4	184.6	215.2	246.3	277.7
8	82.4	116.8	152.2	188.4	225.2	262.6	300.6	339.0
9	98.1	139.2	181.4	224.5	268.5	313.1	358.4	404.2
10	114.7	162.8	212.2	262.7	314.2	366.5	419.5	473.1
11	132.1	187.6	244.6	302.9	362.2	422.6	483.7	545.6
12	150.4	213.5	278.5	344.9	412.5	481.2	551.0	621.4
13	169.4	240.6	313.8	388.7	464.9	542.4	621.0	700.5
14	189.1	268.7	350.5	434.2	519.4	606.0	693.8	782.6
15	209.6	297.8	388.5	481.3	575.8	671.9	769.3	867.7
16	230.7	327.9	427.9	530.1	634.2	740.0	847.3	955.7
17	252.5	359.0	468.4	580.3	694.4	810.2	927.8	1046.5
18	275.0	391.0	510.2	632.1	756.4	882.6	1010.6	1140.0
19	298.1	423.8	553.1	685.4	820.1	957.0	1095.8	1236.2
20	321.8	457.6	597.2	740.0	885.5	1033.3	1183.3	1334.9
21	346.1	492.2	642.4	796.0	952.6	1111.6	1273.0	1436.0
22	371.0	527.6	688.7	853.4	1021.3	1191.8	1364.8	1539.7
23	396.4	563.8	736.0	912.1	1091.5	1273.8	1458.8	1645.7
24	422.4	600.9	784.4	972.1	1163.4	1357.6	1554.8	1754.0
25	449.0	638.7	833.8	1033.3	1236.7	1443.2	1652.8	1864.6

Level of significance $\alpha = 0.05$

n	k							
	3	4	5	6	7	8	9	10
1	3.3	4.7	6.1	7.5	9.0	10.5	12.0	13.5
2	8.8	12.6	16.5	20.5	24.7	28.9	33.1	37.4
3	15.7	22.7	29.9	37.3	44.8	52.5	60.3	68.2
4	23.9	34.6	45.6	57.0	68.6	80.4	92.4	104.6
5	33.1	48.1	63.5	79.3	112.0	112.0	128.8	145.8
6	43.3	62.9	83.2	104.0	125.3	147.0	169.1	191.4
7	54.4	79.1	104.6	130.8	157.6	184.9	212.8	240.9
8	66.3	96.4	127.6	159.6	192.4	225.7	259.7	294.1
9	78.9	114.8	152.0	190.2	229.3	269.1	309.6	350.6
10	92.3	134.3	177.8	222.6	268.4	315.0	362.4	410.5
11	106.3	154.8	205.0	256.6	309.4	363.2	417.9	473.3
12	120.9	176.2	233.4	292.2	352.4	413.6	476.0	539.1
13	136.2	198.5	263.0	329.3	397.1	466.2	536.5	607.7
14	152.1	221.7	293.8	367.8	443.6	520.8	599.4	679.0
15	168.6	245.7	325.7	407.8	491.9	577.4	664.6	752.8
16	185.6	270.6	358.6	449.1	541.7	635.9	732.0	829.2
17	203.1	296.2	392.6	491.7	593.1	696.3	801.5	907.9
18	221.2	322.6	427.6	535.5	646.1	758.5	873.1	989.0
19	239.8	349.7	463.6	580.6	700.5	822.4	946.7	1072.4
20	258.8	377.6	500.5	626.9	756.4	888.1	1022.3	1158.1
21	278.4	406.1	538.4	674.4	813.7	955.4	1099.8	1245.9
22	298.4	435.3	577.2	723.0	872.3	1024.3	1179.1	1335.7
23	318.9	464.2	616.9	772.7	932.4	1094.8	1260.3	1427.7
24	339.8	495.8	657.4	823.5	993.7	1166.8	1343.2	1521.7
25	361.1	527.0	698.8	875.4	1056.3	1240.4	1427.9	1616.6

Level of significance $\alpha = 0.10$

n	k							
	3	4	5	6	7	8	9	10
1	2.9	4.2	5.5	6.8	8.2	9.6	11.1	12.5
2	7.6	11.2	14.9	18.7	22.5	26.5	30.5	34.5
3	13.8	20.2	26.9	33.9	40.9	48.1	55.5	63.0
4	20.9	30.9	41.2	51.8	62.6	73.8	85.1	96.5
5	29.0	42.9	57.2	72.1	87.3	102.8	118.6	134.6
6	37.9	56.1	75.0	94.5	114.4	134.8	155.6	176.6
7	47.6	70.5	94.3	118.8	144.0	169.6	195.8	222.3
8	58.0	86.0	115.0	145.0	175.7	207.0	239.0	271.4
9	69.1	102.4	137.0	172.8	209.4	246.8	284.9	323.6
10	80.8	119.8	160.3	202.2	245.1	288.9	333.5	378.8
11	93.1	138.0	184.8	233.1	282.6	333.1	384.6	436.8
12	105.9	157.1	210.4	265.4	321.8	379.3	438.0	497.5
13	119.3	177.0	237.1	299.1	362.7	427.6	493.7	560.8
14	133.2	197.7	264.8	334.1	405.1	477.7	551.6	626.6
15	147.6	219.1	293.6	370.4	449.2	529.6	611.6	694.8
16	162.5	241.3	323.3	407.9	494.7	583.3	673.6	765.2
17	177.9	264.2	353.9	4469.6	541.6	638.7	737.6	837.9
18	193.7	287.7	385.5	486.5	590.0	695.7	803.4	912.8
19	210.0	311.9	417.9	527.5	639.7	754.3	871.2	989.7
20	226.7	336.7	451.2	569.5	690.7	814.5	940.7	1068.8
21	243.8	362.2	485.4	612.6	743.0	876.2	1012.0	1149.8
22	261.3	388.2	520.4	656.8	796.6	939.4	1085.0	1232.7
23	279.2	414.9	556.1	702.0	851.4	1004.1	1159.7	1317.6
24	297.5	442.2	592.7	748.1	907.4	1070.2	1236.0	1404.3
25	316.2	470.0	630.0	795.3	964.6	1137.6	1314.0	1492.9