Cutoff Points for the Distribution of the Wilcoxon Test Statistic

| Observations | *alpha* | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *0.01* | *0.025* | *0.05* | *0.10* | *0.15* | *0.20* | *0.25* | *0.30* | *0.35* | *0.40* | *0.45* | *0.50* | m |
| 5 | 0 | 0 | 1 | 3 | 3 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 15 |
| 6 | 0 | 1 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 9 | 10 | 10 | 21 |
| 7 | 1 | 3 | 4 | 6 | 8 | 9 | 10 | 11 | 12 | 12 | 13 | 14 | 28 |
| 8 | 2 | 4 | 6 | 9 | 10 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 36 |
| 9 | 4 | 6 | 9 | 11 | 13 | 15 | 17 | 18 | 19 | 20 | 21 | 22 | 45 |
| 10 | 6 | 9 | 11 | 15 | 17 | 19 | 21 | 22 | 24 | 25 | 26 | 27 | 55 |
| 11 | 8 | 11 | 14 | 18 | 21 | 23 | 25 | 27 | 28 | 30 | 32 | 33 | 66 |
| 12 | 10 | 14 | 18 | 22 | 25 | 28 | 30 | 32 | 34 | 36 | 37 | 39 | 78 |
| 13 | 13 | 18 | 22 | 27 | 30 | 33 | 36 | 38 | 40 | 42 | 44 | 45 | 91 |
| 14 | 16 | 22 | 26 | 32 | 36 | 39 | 41 | 44 | 46 | 48 | 50 | 52 | 105 |
| 15 | 20 | 26 | 31 | 37 | 41 | 45 | 48 | 51 | 53 | 55 | 58 | 60 | 120 |
| 16 | 24 | 30 | 36 | 43 | 48 | 51 | 55 | 58 | 60 | 63 | 66 | 68 | 136 |
| 17 | 28 | 35 | 42 | 49 | 54 | 58 | 62 | 65 | 68 | 71 | 74 | 76 | 153 |
| 18 | 33 | 41 | 48 | 56 | 61 | 66 | 70 | 73 | 76 | 80 | 83 | 85 | 171 |
| 19 | 38 | 47 | 54 | 63 | 69 | 74 | 78 | 82 | 85 | 89 | 92 | 95 | 190 |
| 20 | 44 | 53 | 61 | 70 | 77 | 82 | 87 | 91 | 94 | 98 | 102 | 105 | 210 |
| 21 | 50 | 59 | 68 | 78 | 85 | 91 | 96 | 100 | 104 | 108 | 112 | 115 | 231 |
| 22 | 56 | 66 | 76 | 87 | 94 | 100 | 105 | 110 | 114 | 119 | 123 | 126 | 253 |
| 23 | 63 | 74 | 84 | 95 | 103 | 110 | 115 | 120 | 125 | 130 | 134 | 138 | 276 |
| 24 | 70 | 82 | 92 | 105 | 113 | 120 | 126 | 131 | 136 | 141 | 146 | 150 | 300 |
| 25 | 77 | 90 | 101 | 114 | 124 | 131 | 137 | 143 | 148 | 153 | 158 | 162 | 325 |
| 26 | 85 | 99 | 111 | 125 | 134 | 142 | 149 | 155 | 160 | 165 | 170 | 175 | 351 |
| 27 | 93 | 108 | 120 | 135 | 145 | 154 | 161 | 167 | 173 | 178 | 184 | 189 | 378 |
| 28 | 102 | 117 | 131 | 146 | 157 | 166 | 173 | 180 | 186 | 192 | 197 | 203 | 406 |
| 29 | 111 | 127 | 141 | 158 | 169 | 178 | 186 | 193 | 199 | 206 | 212 | 217 | 435 |
| 30 | 121 | 138 | 152 | 170 | 182 | 191 | 199 | 207 | 213 | 220 | 226 | 232 | 465 |

**Note:** for sample size n the tables shows values T(a,n) such that P(T<=T(a,n))=a

m=n(n+1)/2 is the maximum value of T for each n

Under H0 the exact distribution of T is symmetric around its mean, E(T)=n(n+1)/4

For n=5, the quantil of order 90% is q(0.9) = m - q(0.1) = 15-3 = 12