Table A. 3 (continued)


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Table A.4. Upper tail probabilities for the null distribution of Wilcoxon's signed rank $T^{+}$statistic: $n=3(1) 15$

For a given $n$, the table entry for the point $x$ is $P_{0}\left\{T^{+} \geqslant x\right\}$. Under these conditions, if $x$ is such that $P_{\mathrm{o}}\left\{T^{+} \geqslant x\right\}=\alpha$, then $f(\alpha, n)=\mathrm{x}$.

| $x$ | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | . 625 |  |  |  |  |  |  |
| 4 | . 375 |  |  |  |  |  |  |
| 5 | . 250 | . 562 |  |  |  |  |  |
| 6 | . 125 | . 438 |  |  |  |  |  |
| 7 |  | . 312 |  |  |  |  |  |
| 8 |  | . 188 | . 500 |  |  |  |  |
| 9 |  | . 125 | . 406 |  |  |  |  |
| 10 |  | . 062 | . 312 |  |  |  |  |
| 11 |  |  | . 219 | . 500 |  |  |  |
| 12 |  |  | . 156 | . 422 |  |  |  |
| 13 |  |  | . 094 | . 344 |  |  |  |
| 14 |  |  | . 062 | . 281 | . 531 |  |  |
| 15 |  |  | . 031 | . 219 | . 469 |  |  |
| 16 |  |  |  | . 156 | . 406 |  |  |
| 17 |  |  |  | . 109 | . 344 |  |  |
| 18 |  |  |  | . 078 | . 289 | . 527 |  |
| 19 |  |  |  | . 047 | . 234 | . 473 |  |
| 20 |  |  |  | . 031 | . 188 | . 422 |  |
| 21 |  |  |  | . 016 | . 148 | . 371 |  |
| 22 |  |  |  |  | . 109 | . 320 |  |
| 23 |  |  |  |  | . 078 | . 273 | . 500 |
| 24 |  |  |  |  | . 055 | . 230 | . 455 |
| 25 |  |  |  |  | . 039 | . 191 | . 410 |
| 26 |  |  |  |  | . 023 | . 156 | . 367 |
| 27 |  |  |  |  | . 016 | . 125 | . 326 |
| 28 |  |  |  |  | . 008 | . 098 | . 285 |
| 29 |  |  |  |  |  | . 074 | . 248 |
| 30 |  |  |  |  |  | . 055 | . 213 |
| 31 |  |  |  |  |  | . 039 | . 180 |
| 32 |  |  |  |  |  | . 027 | . 150 |
| 33 |  |  |  |  |  | . 020 | . 125 |
| 34 |  |  |  | - |  | . 012 | . 102 |
| 35 |  |  |  |  |  | . 008 | . 082 |
| 36 |  |  |  |  |  | . 004 | . 064 |
| 37 |  |  |  |  |  |  | . 049 |
| 38 |  |  |  |  |  |  | . 037 |
| 39 |  |  |  |  |  |  | . 027 |
| 40 |  |  |  |  |  |  | . 020 |
| 41 |  |  |  |  |  |  | . 014 |
| 42 |  |  |  |  |  |  | . 010 |
| 43 |  |  |  |  |  |  | . 006 |
| 44 |  |  |  |  |  |  | . 004 |
| 45 |  |  |  |  |  |  | . 002 |

Table A. 4 (continued)

| $x$ | 10 | 11 | 12 | 13 | 14 | 15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 28 | . 500 |  |  |  |  |  |
| 29 | . 461 |  |  |  |  |  |
| 30 | . 423 |  |  |  |  |  |
| 31 | . 385 |  |  |  |  |  |
| 32 | . 348 |  |  |  |  |  |
| 33 | . 312 | . 517 |  |  |  |  |
| 34 | . 278 | . 483 |  |  |  |  |
| 35 | . 246 | . 449 |  |  |  |  |
| 36 | . 216 | . 416 |  |  |  |  |
| 37 | . 188 | . 382 |  |  |  |  |
| 38 | . 161 | . 350 |  |  |  |  |
| $39$ | . 138 | . 319 | . 515 |  |  |  |
| $40$ | . 116 | . 289 | . 485 |  |  |  |
| $41$ | . 097 | . 260 | . 455 |  |  |  |
| $42$ | . 080 | . 232 | . 425 |  |  |  |
| $43$ | . 065 | . 207 | . 396 |  |  |  |
| $44$ | $.053$ | . 183 | . 367 |  |  |  |
| $45$ | $042$ | . 160 | . 339 |  |  |  |
| 46 | . 032 | . 139 | . 311 | . 500 |  |  |
| 47 | . 024 | . 120 | . 285 | . 473 |  |  |
| 48 | . 019 | . 103 | . 259 | . 446 |  |  |
| 49 | . 014 | . 087 | . 235 | . 420 | W |  |
| 50 | . 010 | . 074 | . 212 | . 393 |  |  |
| 51 | . 007 | . 062 | . 190 | . 368 |  |  |
| 52 | . 005 | . 051 | . 170 | . 342 |  |  |
| 53 | . 003 | . 042 | . 151 | . 318 | . 500 |  |
| 54 | . 002 | . 034 | . 133 | . 294 | . 476 |  |
| 55 | . 001 | . 027 | . 117 | . 271 | . 452 |  |
| 56 |  | . 021 | . 102 | . 249 | . 428 |  |
| 57 |  | . 016 | . 088 | . 227 | . 404 |  |
| 58 |  | . 012 | . 076 | . 207 | . 380 |  |
| 59 |  | . 009 | . 065 | . 188 | . 357 |  |
| 60 |  | . 007 | . 055 | . 170 | . 335 | . 511 |
| 61 |  | . 005 | . 046 | . 153 | . 313 | . 489 |
| 62 |  | . 003 | . 039 | . 137 | . 292 | . 467 |
| 63 |  | . 002 | . 032 | . 122 | . 271 | . 445 |
| 64 |  | . 001 | . 026 | . 108 | . 251 | . 423 |
| 65 |  | . 001 | . 021 | . 095 | . 232 | . 402 |
| 66 |  | . 000 | . 017 | . 084 | . 213 | . 381 |
| 67 |  |  | . 013 | . 073 | . 196 | . 360 |
| 68 |  |  | . 010 | . 064 | . 179 | . 339 |
| 69 |  |  | . 008 | . 055 | . 163 | . 319 |
| 70 |  |  | . 006 | . 047 | . 148 | . 300 |
| 71 |  |  | . 005 | . 040 | . 134 | . 281 |
| 72 |  |  | . 003 | . 034 | . 121 | . 262 |
| 73 |  |  | . 002 | . 029 | . 108 | . 244 |
| 74 |  |  | . 002 | . 024 | . 097 | . 227 |
| 75 |  |  | . 001 | . 020 | . 086 | . 211 |
| 76 |  |  | . 001 | . 016 | . 077 | . 195 |
| 77 |  |  | . 000 | . 013 | . 068 | . 180 |
|  |  |  | 270 |  |  |  |

Table A. 4 (continued)

| $x$ | 10 | 11 | 12 | 13 | 14 | 15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 78 |  |  | . 000 | . 011 | . 059 | . 165 |
| 79 |  |  |  | . 009 | . 052 | . 151 |
| 80 |  |  |  | . 007 | . 045 | . 138 |
| 81 |  |  |  | . 005 | . 039 | . 126 |
| 82 |  |  |  | . 004 | . 034 | . 115 |
| 83 |  |  |  | . 003 | . 029 | . 104 |
| 84 |  |  |  | . 002 | . 025 | . 094 |
| 85 |  |  |  | . 002 | . 021 | . 084 |
| 86 |  |  |  | . 001 | . 018 | . 076 |
| 87 |  |  |  | . 001 | . 015 | . 068 |
| 88 |  |  |  | . 001 | . 012 | . 060 |
| 89. |  |  |  | . 000 | . 010 | . 053 |
| 90 |  |  |  | . 000 | . 008 | . 047 |
| 91 |  |  |  | . 000 | . 007 | . 042 |
| 92 |  |  |  |  | . 005 | . 036 |
| 93 |  |  |  |  | . 004 | . 032 |
| 94 |  |  |  |  | . 003 | . 028 |
| 95 |  |  |  |  | . 003 | . 024 |
| 96 |  |  |  |  | . 002 | . 021 |
| 97 |  |  |  |  | . 002 | . 018 |
| 98 |  |  |  |  | . 001 | . 015 |
| 99 |  |  |  |  | . 001 | . 013 |
| 100 |  |  |  |  | . 001 | . 011 |
| 101 |  |  |  |  | . 000 | . 009 |
| 102 |  |  |  |  | . 000 | . 008 |
| 103 |  |  |  |  | . 000 | . 006 |
| 104 |  |  |  |  | . 000 | . 005 |
| 105 |  |  |  |  | . 000 | . 004 |
| 106 |  |  |  |  |  | . 003 |
| 107 |  | a) |  |  |  | . 003 |
| 108 |  |  |  |  |  | . 002 |
| 109 |  |  |  |  |  | . 002 |
| 110 |  |  |  |  |  | . 001 |
| 111 |  |  |  |  |  | . 001 |
| 112 |  |  |  |  |  | . 001 |
| 113 |  |  |  |  |  | . 001 |
| 114 |  |  |  |  |  | . 000 |
| 115 |  |  |  |  |  | . 000 |
| 116 |  |  |  |  |  | . 000 |
| 117 |  |  |  |  |  | . 000 |
| 118 |  |  |  |  |  | . 000 |
| 119 |  |  |  |  |  | . 000 |
| 120 |  |  |  |  |  | . 000 |

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