

Tablica 1

Wartości dystrybuanty rozkładu normalnego

$$P(X < t_\alpha) = \alpha$$

| | 0,00 | 0,01 | 0,02 | 0,03 | 0,04 | 0,05 | 0,06 | 0,07 | 0,08 | 0,09 |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0,0 | 0,0000 | 0,0040 | 0,0080 | 0,0120 | 0,0160 | 0,0199 | 0,0239 | 0,0279 | 0,0319 | 0,0359 |
| 0,1 | 0,0398 | 0,0438 | 0,0478 | 0,0517 | 0,0557 | 0,0596 | 0,0636 | 0,0675 | 0,0714 | 0,0753 |
| 0,2 | 0,0793 | 0,0832 | 0,0871 | 0,0910 | 0,0948 | 0,0987 | 0,1026 | 0,1064 | 0,1103 | 0,1141 |
| 0,3 | 0,1179 | 0,1217 | 0,1255 | 0,1293 | 0,1331 | 0,1368 | 0,1406 | 0,1443 | 0,1480 | 0,1517 |
| 0,4 | 0,1554 | 0,1591 | 0,1628 | 0,1664 | 0,1700 | 0,1736 | 0,1772 | 0,1808 | 0,1844 | 0,1879 |
| 0,5 | 0,1915 | 0,1950 | 0,1985 | 0,2019 | 0,2054 | 0,2088 | 0,2123 | 0,2157 | 0,2190 | 0,2224 |
| 0,6 | 0,2257 | 0,2291 | 0,2324 | 0,2357 | 0,2389 | 0,2422 | 0,2454 | 0,2486 | 0,2517 | 0,2549 |
| 0,7 | 0,2580 | 0,2611 | 0,2642 | 0,2673 | 0,2704 | 0,2734 | 0,2764 | 0,2794 | 0,2823 | 0,2852 |
| 0,8 | 0,2881 | 0,2910 | 0,2939 | 0,2967 | 0,2995 | 0,3023 | 0,3051 | 0,3078 | 0,3106 | 0,3133 |
| 0,9 | 0,3159 | 0,3186 | 0,3212 | 0,3238 | 0,3264 | 0,3289 | 0,3315 | 0,3340 | 0,3365 | 0,3389 |
| 1,0 | 0,3413 | 0,3438 | 0,3461 | 0,3485 | 0,3508 | 0,3531 | 0,3554 | 0,3577 | 0,3599 | 0,3621 |
| 1,1 | 0,3643 | 0,3665 | 0,3686 | 0,3708 | 0,3729 | 0,3749 | 0,3770 | 0,3790 | 0,3810 | 0,3830 |
| 1,2 | 0,3849 | 0,3869 | 0,3888 | 0,3907 | 0,3925 | 0,3944 | 0,3962 | 0,3980 | 0,3997 | 0,4015 |
| 1,3 | 0,4032 | 0,4049 | 0,4066 | 0,4082 | 0,4099 | 0,4115 | 0,4131 | 0,4147 | 0,4162 | 0,4177 |
| 1,4 | 0,4192 | 0,4207 | 0,4222 | 0,4236 | 0,4251 | 0,4265 | 0,4279 | 0,4292 | 0,4306 | 0,4319 |
| 1,5 | 0,4332 | 0,4345 | 0,4357 | 0,4370 | 0,4382 | 0,4394 | 0,4406 | 0,4418 | 0,4429 | 0,4441 |
| 1,6 | 0,4452 | 0,4463 | 0,4474 | 0,4484 | 0,4495 | 0,4505 | 0,4515 | 0,4525 | 0,4535 | 0,4545 |
| 1,7 | 0,4554 | 0,4564 | 0,4573 | 0,4582 | 0,4591 | 0,4599 | 0,4608 | 0,4616 | 0,4625 | 0,4633 |
| 1,8 | 0,4641 | 0,4649 | 0,4656 | 0,4664 | 0,4671 | 0,4678 | 0,4686 | 0,4693 | 0,4699 | 0,4706 |
| 1,9 | 0,4713 | 0,4719 | 0,4726 | 0,4732 | 0,4738 | 0,4744 | 0,4750 | 0,4756 | 0,4761 | 0,4767 |
| 2,0 | 0,4772 | 0,4778 | 0,4783 | 0,4788 | 0,4793 | 0,4798 | 0,4803 | 0,4808 | 0,4812 | 0,4817 |
| 2,1 | 0,4821 | 0,4826 | 0,4830 | 0,4834 | 0,4838 | 0,4842 | 0,4846 | 0,4850 | 0,4854 | 0,4857 |
| 2,2 | 0,4861 | 0,4864 | 0,4868 | 0,4871 | 0,4875 | 0,4878 | 0,4881 | 0,4884 | 0,4887 | 0,4890 |
| 2,3 | 0,4893 | 0,4896 | 0,4898 | 0,4901 | 0,4904 | 0,4906 | 0,4909 | 0,4911 | 0,4913 | 0,4916 |
| 2,4 | 0,4918 | 0,4920 | 0,4922 | 0,4925 | 0,4927 | 0,4929 | 0,4931 | 0,4932 | 0,4934 | 0,4936 |
| 2,5 | 0,4938 | 0,4940 | 0,4941 | 0,4943 | 0,4945 | 0,4946 | 0,4948 | 0,4949 | 0,4951 | 0,4952 |
| 2,6 | 0,4953 | 0,4955 | 0,4956 | 0,4957 | 0,4959 | 0,4960 | 0,4961 | 0,4962 | 0,4963 | 0,4964 |
| 2,7 | 0,4965 | 0,4965 | 0,4967 | 0,4968 | 0,4969 | 0,4970 | 0,4971 | 0,4972 | 0,4973 | 0,4974 |
| 2,8 | 0,4974 | 0,4975 | 0,4976 | 0,4977 | 0,4977 | 0,4978 | 0,4979 | 0,4979 | 0,4980 | 0,4981 |
| 2,9 | 0,4981 | 0,4982 | 0,4982 | 0,4983 | 0,4984 | 0,4984 | 0,4985 | 0,4985 | 0,4986 | 0,4986 |
| 3,0 | 0,4987 | 0,4987 | 0,4987 | 0,4988 | 0,4988 | 0,4989 | 0,4989 | 0,4989 | 0,4990 | 0,4990 |

Tablica 2

Wartości krytyczne w rozkładzie t-Studenta

$$P(t > t_{\alpha}) = \alpha$$

| | 0,9 | 0,8 | 0,7 | 0,5 | 0,3 | 0,2 | 0,1 | 0,05 | 0,02 | 0,01 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 0,158 | 0,325 | 0,510 | 1,000 | 1,963 | 3,078 | 6,314 | 12,71 | 31,82 | 63,66 |
| 2 | 0,142 | 0,289 | 0,445 | 0,816 | 1,386 | 1,886 | 2,920 | 4,303 | 6,965 | 6,925 |
| 3 | 0,137 | 0,277 | 0,424 | 0,765 | 1,250 | 1,638 | 2,353 | 3,182 | 4,541 | 5,841 |
| 4 | 0,134 | 0,271 | 0,414 | 0,741 | 1,190 | 1,533 | 2,132 | 2,776 | 3,747 | 4,604 |
| 5 | 0,132 | 0,267 | 0,408 | 0,727 | 1,156 | 1,476 | 2,015 | 2,571 | 3,365 | 4,032 |
| 6 | 0,131 | 0,265 | 0,404 | 0,718 | 1,134 | 1,440 | 1,943 | 2,447 | 3,143 | 3,707 |
| 7 | 0,130 | 0,263 | 0,402 | 0,711 | 1,119 | 1,415 | 1,895 | 2,365 | 2,998 | 3,499 |
| 8 | 0,130 | 0,262 | 0,399 | 0,706 | 1,108 | 1,397 | 1,860 | 2,306 | 2,896 | 3,355 |
| 9 | 0,129 | 0,261 | 0,398 | 0,703 | 1,100 | 1,383 | 1,833 | 2,262 | 2,821 | 3,250 |
| 10 | 0,129 | 0,260 | 0,397 | 0,700 | 1,093 | 1,372 | 1,812 | 2,228 | 2,764 | 3,169 |
| 11 | 0,129 | 0,260 | 0,396 | 0,697 | 1,088 | 1,363 | 1,796 | 2,201 | 2,718 | 3,106 |
| 12 | 0,128 | 0,259 | 0,395 | 0,695 | 1,083 | 1,356 | 1,782 | 2,179 | 2,681 | 3,055 |
| 13 | 0,128 | 0,259 | 0,394 | 0,694 | 1,079 | 1,350 | 1,771 | 2,160 | 2,650 | 3,012 |
| 14 | 0,128 | 0,258 | 0,393 | 0,692 | 1,076 | 1,345 | 1,761 | 2,145 | 2,624 | 2,977 |
| 15 | 0,128 | 0,258 | 0,393 | 0,691 | 1,074 | 1,341 | 1,753 | 2,131 | 2,602 | 2,947 |
| 16 | 0,128 | 0,258 | 0,392 | 0,690 | 1,071 | 1,337 | 1,746 | 2,120 | 2,583 | 2,921 |
| 17 | 0,128 | 0,257 | 0,392 | 0,689 | 1,069 | 1,333 | 1,740 | 2,110 | 2,567 | 2,898 |
| 18 | 0,127 | 0,257 | 0,392 | 0,688 | 1,067 | 1,330 | 1,734 | 2,101 | 2,552 | 2,878 |
| 19 | 0,127 | 0,257 | 0,391 | 0,688 | 1,066 | 1,328 | 1,729 | 2,093 | 2,539 | 2,861 |
| 20 | 0,127 | 0,257 | 0,391 | 0,687 | 1,064 | 1,325 | 1,725 | 2,086 | 2,528 | 2,845 |
| 21 | 0,127 | 0,257 | 0,391 | 0,686 | 1,063 | 1,323 | 1,721 | 2,080 | 2,518 | 2,831 |
| 22 | 0,127 | 0,256 | 0,390 | 0,686 | 1,061 | 1,321 | 1,717 | 2,074 | 2,508 | 2,819 |
| 23 | 0,127 | 0,256 | 0,390 | 0,685 | 1,060 | 1,319 | 1,714 | 2,069 | 2,500 | 2,807 |
| 24 | 0,127 | 0,256 | 0,390 | 0,685 | 1,059 | 1,318 | 1,711 | 2,064 | 2,492 | 2,797 |
| 25 | 0,127 | 0,256 | 0,390 | 0,684 | 1,058 | 1,316 | 1,708 | 2,060 | 2,485 | 2,787 |
| 26 | 0,127 | 0,256 | 0,390 | 0,684 | 1,058 | 1,315 | 1,706 | 2,056 | 2,479 | 2,779 |
| 27 | 0,127 | 0,256 | 0,389 | 0,684 | 1,057 | 1,314 | 1,703 | 2,052 | 2,473 | 2,771 |
| 28 | 0,127 | 0,256 | 0,389 | 0,683 | 1,056 | 1,313 | 1,701 | 2,048 | 2,467 | 2,763 |
| 29 | 0,127 | 0,256 | 0,389 | 0,683 | 1,055 | 1,311 | 1,699 | 2,045 | 2,462 | 2,756 |
| 30 | 0,127 | 0,256 | 0,389 | 0,683 | 1,055 | 1,310 | 1,697 | 2,042 | 2,457 | 2,750 |
| 40 | 0,126 | 0,255 | 0,388 | 0,681 | 1,050 | 1,303 | 1,684 | 2,021 | 2,423 | 2,740 |
| 60 | 0,126 | 0,254 | 0,387 | 0,679 | 1,046 | 1,296 | 1,671 | 2,000 | 2,390 | 2,660 |
| 120 | 0,126 | 0,254 | 0,386 | 0,677 | 1,041 | 1,282 | 1,658 | 1,980 | 2,358 | 2,617 |

Tablica 3

Wartości krytyczne rozkładu Chi-kwadrat

$$P(\chi > \chi_{\alpha}^2) = \alpha$$

| | 0,99 | 0,95 | 0,90 | 0,80 | 0,50 | 0,30 | 0,20 | 0,10 | 0,05 | 0,02 | 0,01 |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 0,000 | 0,004 | 0,016 | 0,064 | 0,455 | 1,740 | 1,642 | 2,706 | 3,841 | 5,412 | 6,635 |
| 2 | 0,020 | 0,103 | 0,211 | 0,446 | 1,386 | 2,408 | 3,219 | 4,605 | 5,991 | 7,824 | 9,210 |
| 3 | 0,115 | 0,352 | 0,584 | 1,005 | 2,336 | 3,665 | 4,642 | 6,251 | 7,815 | 9,837 | 11,34 |
| 4 | 0,297 | 0,711 | 1,064 | 1,649 | 3,357 | 4,878 | 5,989 | 7,779 | 9,488 | 11,67 | 13,28 |
| 5 | 0,554 | 1,145 | 1,610 | 2,343 | 4,351 | 6,064 | 7,289 | 9,236 | 11,07 | 13,39 | 15,09 |
| 6 | 0,972 | 1,635 | 2,204 | 3,070 | 5,348 | 7,231 | 8,558 | 10,64 | 12,59 | 15,03 | 16,81 |
| 7 | 1,239 | 2,167 | 2,833 | 3,822 | 6,346 | 8,383 | 9,803 | 12,02 | 14,07 | 16,62 | 18,47 |
| 8 | 1,646 | 2,733 | 3,490 | 4,594 | 7,344 | 9,524 | 11,03 | 13,36 | 15,51 | 18,17 | 20,09 |
| 9 | 2,088 | 3,325 | 4,168 | 5,380 | 8,343 | 10,66 | 12,24 | 14,68 | 16,92 | 19,68 | 21,67 |
| 10 | 2,558 | 3,940 | 4,865 | 6,179 | 9,342 | 11,78 | 13,44 | 15,99 | 18,31 | 21,16 | 23,21 |
| 11 | 3,053 | 4,575 | 5,578 | 6,989 | 10,34 | 12,90 | 14,63 | 17,27 | 19,67 | 22,62 | 24,72 |
| 12 | 3,571 | 5,226 | 6,304 | 7,807 | 11,34 | 14,01 | 15,81 | 18,55 | 21,03 | 24,05 | 26,22 |
| 13 | 4,107 | 5,892 | 7,042 | 8,643 | 12,34 | 15,12 | 16,98 | 19,81 | 22,36 | 25,47 | 27,69 |
| 14 | 4,660 | 6,571 | 7,790 | 9,467 | 13,34 | 16,22 | 18,15 | 21,06 | 23,68 | 26,87 | 29,14 |
| 15 | 5,229 | 7,261 | 8,547 | 10,31 | 14,34 | 17,32 | 19,31 | 22,31 | 25,00 | 28,26 | 30,58 |
| 16 | 5,812 | 7,962 | 9,312 | 11,15 | 15,34 | 18,42 | 20,46 | 23,54 | 26,30 | 29,63 | 32,00 |
| 17 | 6,408 | 8,672 | 10,08 | 12,00 | 16,34 | 19,51 | 21,61 | 24,77 | 27,57 | 30,99 | 33,41 |
| 18 | 7,015 | 9,390 | 10,86 | 12,86 | 17,34 | 20,60 | 22,76 | 25,99 | 28,87 | 32,35 | 34,80 |
| 19 | 7,633 | 10,12 | 11,65 | 13,72 | 18,34 | 21,69 | 23,90 | 27,20 | 30,14 | 33,69 | 36,19 |
| 20 | 8,260 | 10,85 | 12,44 | 14,58 | 19,34 | 22,77 | 25,04 | 28,41 | 31,41 | 35,02 | 37,57 |
| 21 | 8,897 | 11,59 | 13,24 | 15,44 | 20,34 | 23,86 | 26,17 | 29,61 | 32,67 | 36,34 | 38,93 |
| 22 | 9,542 | 12,34 | 14,04 | 16,31 | 21,34 | 24,94 | 27,30 | 30,81 | 33,92 | 37,66 | 40,29 |
| 23 | 10,20 | 13,09 | 14,85 | 17,19 | 22,34 | 26,02 | 28,34 | 32,01 | 35,17 | 38,97 | 41,64 |
| 24 | 10,86 | 13,85 | 15,66 | 18,06 | 23,34 | 27,10 | 29,55 | 33,20 | 36,41 | 40,27 | 42,98 |
| 25 | 11,52 | 14,61 | 16,47 | 18,94 | 24,34 | 28,17 | 30,67 | 34,38 | 37,65 | 41,57 | 44,31 |
| 26 | 12,20 | 15,38 | 17,29 | 19,82 | 25,34 | 29,25 | 31,79 | 35,56 | 38,88 | 42,86 | 45,64 |
| 27 | 12,88 | 16,15 | 18,11 | 20,70 | 26,34 | 30,32 | 32,91 | 36,71 | 40,11 | 44,14 | 46,96 |
| 28 | 13,56 | 16,93 | 18,94 | 21,59 | 27,34 | 31,39 | 34,03 | 37,92 | 41,34 | 45,42 | 48,28 |
| 29 | 14,26 | 17,71 | 19,77 | 22,47 | 28,34 | 32,46 | 35,14 | 39,09 | 42,56 | 46,69 | 49,59 |
| 30 | 14,95 | 18,49 | 20,60 | 23,36 | 29,34 | 33,53 | 36,25 | 40,26 | 43,77 | 47,96 | 50,89 |

Table 1 Binomial distribution — probability function

| | x | <i>p</i> | | | | | | | | | | | |
|------------|---|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|
| | | 0.01 | 0.05 | 0.10 | 0.15 | 0.20 | 0.25 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | |
| n=1 | 0 | .9900 | .9500 | .9000 | .8500 | .8000 | .7500 | .7000 | .6500 | .6000 | .5500 | .5000 | 1 |
| | 1 | .0100 | .0500 | .1000 | .1500 | .2000 | .2500 | .3000 | .3500 | .4000 | .4500 | .5000 | 0 |
| n=2 | 0 | .9801 | .9025 | .8100 | .7225 | .6400 | .5625 | .4900 | .4225 | .3600 | .3025 | .2500 | 2 |
| | 1 | .0198 | .0950 | .1800 | .2550 | .3200 | .3750 | .4200 | .4550 | .4800 | .4950 | .5000 | 1 |
| | 2 | .0001 | .0025 | .0100 | .0225 | .0400 | .0625 | .0900 | .1225 | .1600 | .2025 | .2500 | 0 |
| n=3 | 0 | .9703 | .8574 | .7290 | .6141 | .5120 | .4219 | .3430 | .2746 | .2160 | .1664 | .1250 | 3 |
| | 1 | .0294 | .1354 | .2430 | .3251 | .3840 | .4219 | .4410 | .4436 | .4320 | .4084 | .3750 | 2 |
| | 2 | .0003 | .0071 | .0270 | .0574 | .0960 | .1406 | .1890 | .2389 | .2880 | .3341 | .3750 | 1 |
| | 3 | | .0001 | .0010 | .0034 | .0080 | .0156 | .0270 | .0429 | .0640 | .0911 | .1250 | 0 |
| n=4 | 0 | .9606 | .8145 | .6561 | .5220 | .4096 | .3164 | .2401 | .1785 | .1296 | .0915 | .0625 | 4 |
| | 1 | .0388 | .1715 | .2916 | .3685 | .4096 | .4219 | .4116 | .3845 | .3456 | .2995 | .2500 | 3 |
| | 2 | .0006 | .0135 | .0486 | .0975 | .1536 | .2109 | .2646 | .3105 | .3456 | .3675 | .3750 | 2 |
| | 3 | | .0005 | .0036 | .0115 | .0256 | .0469 | .0756 | .1115 | .1536 | .2005 | .2500 | 1 |
| | 4 | | | .0001 | .0005 | .0016 | .0039 | .0081 | .0150 | .0256 | .0410 | .0625 | 0 |
| n=5 | 0 | .9510 | .7738 | .5905 | .4437 | .3277 | .2373 | .1681 | .1160 | .0778 | .0503 | .0313 | 5 |
| | 1 | .0480 | .2036 | .3281 | .3915 | .4096 | .3955 | .3602 | .3124 | .2592 | .2059 | .1563 | 4 |
| | 2 | .0010 | .0214 | .0729 | .1382 | .2048 | .2637 | .3087 | .3364 | .3456 | .3369 | .3125 | 3 |
| | 3 | | .0011 | .0081 | .0244 | .0512 | .0879 | .1323 | .1811 | .2304 | .2757 | .3125 | 2 |
| | 4 | | | .0005 | .0022 | .0064 | .0146 | .0284 | .0488 | .0768 | .1128 | .1563 | 1 |
| | 5 | | | | .0001 | .0003 | .0010 | .0024 | .0053 | .0102 | .0185 | .0313 | 0 |
| n=6 | 0 | .9415 | .7351 | .5314 | .3771 | .2621 | .1780 | .1176 | .0754 | .0467 | .0277 | .0156 | 6 |
| | 1 | .0571 | .2321 | .3543 | .3993 | .3932 | .3560 | .3025 | .2437 | .1866 | .1359 | .0938 | 5 |
| | 2 | .0014 | .0305 | .0984 | .1762 | .2458 | .2966 | .3241 | .3280 | .3110 | .2780 | .2344 | 4 |
| | 3 | | .0021 | .0146 | .0415 | .0819 | .1318 | .1852 | .2355 | .2765 | .3032 | .3125 | 3 |
| | 4 | | .0001 | .0012 | .0055 | .0154 | .0330 | .0595 | .0951 | .1382 | .1861 | .2344 | 2 |
| | 5 | | | .0001 | .0004 | .0015 | .0044 | .0102 | .0205 | .0369 | .0609 | .0938 | 1 |
| | 6 | | | | | .0001 | .0002 | .0007 | .0018 | .0041 | .0083 | .0156 | 0 |
| n=7 | 0 | .9321 | .6983 | .4783 | .3206 | .2097 | .1335 | .0824 | .0490 | .0280 | .0152 | .0078 | 7 |
| | 1 | .0659 | .2573 | .3720 | .3960 | .3670 | .3115 | .2471 | .1848 | .1306 | .0872 | .0547 | 6 |
| | 2 | .0020 | .0406 | .1240 | .2097 | .2753 | .3115 | .3177 | .2985 | .2613 | .2140 | .1641 | 5 |
| | 3 | | .0036 | .0230 | .0617 | .1147 | .1730 | .2269 | .2679 | .2903 | .2918 | .2734 | 4 |
| | 4 | | .0002 | .0026 | .0109 | .0287 | .0577 | .0972 | .1442 | .1935 | .2388 | .2734 | 3 |
| | 5 | | | .0002 | .0012 | .0043 | .0115 | .0250 | .0466 | .0774 | .1172 | .1641 | 2 |
| | 6 | | | | .0001 | .0004 | .0013 | .0036 | .0084 | .0172 | .0320 | .0547 | 1 |
| | 7 | | | | | | .0001 | .0002 | .0006 | .0016 | .0037 | .0078 | 0 |
| n=8 | 0 | .9227 | .6634 | .4305 | .2725 | .1678 | .1001 | .0576 | .0319 | .0168 | .0084 | .0039 | 8 |
| | 1 | .0746 | .2793 | .3826 | .3847 | .3355 | .2670 | .1977 | .1373 | .0896 | .0548 | .0313 | 7 |
| | 2 | .0026 | .0515 | .1488 | .2376 | .2936 | .3115 | .2965 | .2587 | .2090 | .1569 | .1094 | 6 |
| | 3 | .0001 | .0054 | .0331 | .0839 | .1468 | .2076 | .2541 | .2786 | .2787 | .2568 | .2188 | 5 |
| | 4 | | .0004 | .0046 | .0185 | .0459 | .0865 | .1361 | .1875 | .2322 | .2627 | .2734 | 4 |
| | 5 | | | .0004 | .0026 | .0092 | .0231 | .0467 | .0808 | .1239 | .1719 | .2188 | 3 |
| | 6 | | | | .0002 | .0011 | .0038 | .0100 | .0217 | .0413 | .0703 | .1094 | 2 |
| | 7 | | | | | .0001 | .0004 | .0012 | .0033 | .0079 | .0164 | .0313 | 1 |
| | 8 | | | | | | | .0001 | .0002 | .0007 | .0017 | .0039 | 0 |
| | | 0.99 | 0.95 | 0.90 | 0.85 | 0.80 | 0.75 | 0.70 | 0.65 | 0.60 | 0.55 | 0.50 | x |

| | x | p | | | | | | | | | | | |
|------|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----|
| | | 0.01 | 0.05 | 0.10 | 0.15 | 0.20 | 0.25 | 0.30 | 0.35 | 0.40 | 0.45 | 0.50 | |
| n=9 | 0 | 0.9135 | 0.6302 | 0.3874 | 0.2316 | 0.1342 | 0.0751 | 0.0404 | 0.0207 | 0.0101 | 0.0046 | 0.0020 | 9 |
| | 1 | 0.0830 | 0.2985 | 0.3874 | 0.3679 | 0.3020 | 0.2253 | 0.1556 | 0.1004 | 0.0605 | 0.0339 | 0.0176 | 8 |
| | 2 | 0.0034 | 0.0629 | 0.1722 | 0.2597 | 0.3020 | 0.3003 | 0.2668 | 0.2162 | 0.1612 | 0.1110 | 0.0703 | 7 |
| | 3 | 0.0001 | 0.0077 | 0.0446 | 0.1069 | 0.1762 | 0.2336 | 0.2668 | 0.2716 | 0.2508 | 0.2119 | 0.1641 | 6 |
| | 4 | | 0.0006 | 0.0074 | 0.0283 | 0.0661 | 0.1168 | 0.1715 | 0.2194 | 0.2508 | 0.2600 | 0.2461 | 5 |
| | 5 | | | 0.0008 | 0.0050 | 0.0165 | 0.0389 | 0.0735 | 0.1181 | 0.1672 | 0.2128 | 0.2461 | 4 |
| | 6 | | | 0.0001 | 0.0006 | 0.0028 | 0.0087 | 0.0210 | 0.0424 | 0.0743 | 0.1160 | 0.1641 | 3 |
| | 7 | | | | | 0.0003 | 0.0012 | 0.0039 | 0.0098 | 0.0212 | 0.0407 | 0.0703 | 2 |
| | 8 | | | | | | 0.0001 | 0.0004 | 0.0013 | 0.0035 | 0.0083 | 0.0176 | 1 |
| 9 | | | | | | | | 0.0001 | 0.0003 | 0.0008 | 0.0020 | 0 | |
| n=10 | 0 | 0.9044 | 0.5987 | 0.3487 | 0.1969 | 0.1074 | 0.0563 | 0.0282 | 0.0135 | 0.0060 | 0.0025 | 0.0010 | 10 |
| | 1 | 0.0914 | 0.3151 | 0.3874 | 0.3474 | 0.2684 | 0.1877 | 0.1211 | 0.0725 | 0.0403 | 0.0207 | 0.0098 | 9 |
| | 2 | 0.0042 | 0.0746 | 0.1937 | 0.2759 | 0.3020 | 0.2816 | 0.2335 | 0.1757 | 0.1209 | 0.0763 | 0.0439 | 8 |
| | 3 | 0.0001 | 0.0105 | 0.0574 | 0.1298 | 0.2013 | 0.2503 | 0.2668 | 0.2522 | 0.2150 | 0.1665 | 0.1172 | 7 |
| | 4 | | 0.0010 | 0.0112 | 0.0401 | 0.0881 | 0.1460 | 0.2001 | 0.2377 | 0.2508 | 0.2384 | 0.2051 | 6 |
| | 5 | | 0.0001 | 0.0015 | 0.0085 | 0.0264 | 0.0584 | 0.1029 | 0.1536 | 0.2007 | 0.2340 | 0.2461 | 5 |
| | 6 | | | 0.0001 | 0.0012 | 0.0055 | 0.0162 | 0.0368 | 0.0689 | 0.1115 | 0.1596 | 0.2051 | 4 |
| | 7 | | | | 0.0001 | 0.0008 | 0.0031 | 0.0090 | 0.0212 | 0.0425 | 0.0746 | 0.1172 | 3 |
| | 8 | | | | | 0.0001 | 0.0004 | 0.0014 | 0.0043 | 0.0106 | 0.0229 | 0.0439 | 2 |
| | 9 | | | | | | | 0.0001 | 0.0005 | 0.0016 | 0.0042 | 0.0098 | 1 |
| 10 | | | | | | | | | 0.0001 | 0.0003 | 0.0010 | 0 | |
| n=11 | 0 | 0.8953 | 0.5688 | 0.3138 | 0.1673 | 0.0859 | 0.0422 | 0.0198 | 0.0088 | 0.0036 | 0.0014 | 0.0005 | 11 |
| | 1 | 0.0995 | 0.3293 | 0.3835 | 0.3248 | 0.2362 | 0.1549 | 0.0932 | 0.0518 | 0.0266 | 0.0125 | 0.0054 | 10 |
| | 2 | 0.0050 | 0.0867 | 0.2131 | 0.2866 | 0.2953 | 0.2581 | 0.1998 | 0.1395 | 0.0887 | 0.0513 | 0.0269 | 9 |
| | 3 | 0.0002 | 0.0137 | 0.0710 | 0.1517 | 0.2215 | 0.2581 | 0.2568 | 0.2254 | 0.1774 | 0.1259 | 0.0806 | 8 |
| | 4 | | 0.0014 | 0.0158 | 0.0536 | 0.1107 | 0.1721 | 0.2201 | 0.2428 | 0.2365 | 0.2060 | 0.1611 | 7 |
| | 5 | | 0.0001 | 0.0025 | 0.0132 | 0.0388 | 0.0803 | 0.1321 | 0.1830 | 0.2207 | 0.2360 | 0.2256 | 6 |
| | 6 | | | 0.0003 | 0.0023 | 0.0097 | 0.0268 | 0.0566 | 0.0985 | 0.1471 | 0.1931 | 0.2256 | 5 |
| | 7 | | | | 0.0003 | 0.0017 | 0.0064 | 0.0173 | 0.0379 | 0.0701 | 0.1128 | 0.1611 | 4 |
| | 8 | | | | | 0.0002 | 0.0011 | 0.0037 | 0.0102 | 0.0234 | 0.0462 | 0.0806 | 3 |
| | 9 | | | | | | 0.0001 | 0.0005 | 0.0018 | 0.0052 | 0.0126 | 0.0269 | 2 |
| | 10 | | | | | | | | 0.0002 | 0.0007 | 0.0021 | 0.0054 | 1 |
| 11 | | | | | | | | | | 0.0002 | 0.0005 | 0 | |
| n=12 | 0 | 0.8864 | 0.5404 | 0.2824 | 0.1422 | 0.0687 | 0.0317 | 0.0138 | 0.0057 | 0.0022 | 0.0008 | 0.0002 | 12 |
| | 1 | 0.1074 | 0.3413 | 0.3766 | 0.3012 | 0.2062 | 0.1267 | 0.0712 | 0.0368 | 0.0174 | 0.0075 | 0.0029 | 11 |
| | 2 | 0.0060 | 0.0988 | 0.2301 | 0.2924 | 0.2835 | 0.2323 | 0.1678 | 0.1088 | 0.0639 | 0.0339 | 0.0161 | 10 |
| | 3 | 0.0002 | 0.0173 | 0.0852 | 0.1720 | 0.2362 | 0.2581 | 0.2397 | 0.1954 | 0.1419 | 0.0923 | 0.0537 | 9 |
| | 4 | | 0.0021 | 0.0213 | 0.0683 | 0.1329 | 0.1936 | 0.2311 | 0.2367 | 0.2128 | 0.1700 | 0.1208 | 8 |
| | 5 | | 0.0002 | 0.0038 | 0.0193 | 0.0532 | 0.1032 | 0.1585 | 0.2039 | 0.2270 | 0.2225 | 0.1934 | 7 |
| | 6 | | | 0.0005 | 0.0040 | 0.0155 | 0.0401 | 0.0792 | 0.1281 | 0.1766 | 0.2124 | 0.2256 | 6 |
| | 7 | | | | 0.0006 | 0.0033 | 0.0115 | 0.0291 | 0.0591 | 0.1009 | 0.1489 | 0.1934 | 5 |
| | 8 | | | | 0.0001 | 0.0005 | 0.0024 | 0.0078 | 0.0199 | 0.0420 | 0.0762 | 0.1208 | 4 |
| | 9 | | | | | 0.0001 | 0.0004 | 0.0015 | 0.0048 | 0.0125 | 0.0277 | 0.0537 | 3 |
| | 10 | | | | | | | 0.0002 | 0.0008 | 0.0025 | 0.0068 | 0.0161 | 2 |
| | 11 | | | | | | | | 0.0001 | 0.0003 | 0.0010 | 0.0029 | 1 |
| 12 | | | | | | | | | | 0.0001 | 0.0002 | 0 | |
| n=13 | 0 | 0.8775 | 0.5133 | 0.2542 | 0.1209 | 0.0550 | 0.0238 | 0.0097 | 0.0037 | 0.0013 | 0.0004 | 0.0001 | 13 |
| | 1 | 0.1152 | 0.3512 | 0.3672 | 0.2774 | 0.1787 | 0.1029 | 0.0540 | 0.0259 | 0.0113 | 0.0045 | 0.0016 | 12 |
| | 2 | 0.0070 | 0.1109 | 0.2448 | 0.2937 | 0.2680 | 0.2059 | 0.1388 | 0.0836 | 0.0453 | 0.0220 | 0.0095 | 11 |
| | 3 | 0.0003 | 0.0214 | 0.0997 | 0.1900 | 0.2457 | 0.2517 | 0.2181 | 0.1651 | 0.1107 | 0.0660 | 0.0349 | 10 |
| | 4 | | 0.0028 | 0.0277 | 0.0838 | 0.1535 | 0.2097 | 0.2337 | 0.2222 | 0.1845 | 0.1350 | 0.0873 | 9 |
| | 5 | | 0.0003 | 0.0055 | 0.0266 | 0.0691 | 0.1258 | 0.1803 | 0.2154 | 0.2214 | 0.1989 | 0.1571 | 8 |
| | 6 | | | 0.0008 | 0.0063 | 0.0230 | 0.0559 | 0.1030 | 0.1546 | 0.1968 | 0.2169 | 0.2095 | 7 |
| | 7 | | | 0.0001 | 0.0011 | 0.0058 | 0.0186 | 0.0442 | 0.0833 | 0.1312 | 0.1775 | 0.2095 | 6 |
| | 8 | | | | 0.0001 | 0.0011 | 0.0047 | 0.0142 | 0.0336 | 0.0656 | 0.1089 | 0.1571 | 5 |
| | 9 | | | | | 0.0001 | 0.0009 | 0.0034 | 0.0101 | 0.0243 | 0.0495 | 0.0873 | 4 |
| | 10 | | | | | | 0.0001 | 0.0006 | 0.0022 | 0.0065 | 0.0162 | 0.0349 | 3 |
| | 11 | | | | | | | 0.0001 | 0.0003 | 0.0012 | 0.0036 | 0.0095 | 2 |
| | 12 | | | | | | | | | 0.0001 | 0.0005 | 0.0016 | 1 |
| 13 | | | | | | | | | | | 0.0001 | 0 | |
| | | 0.99 | 0.95 | 0.90 | 0.85 | 0.80 | 0.75 | 0.70 | 0.65 | 0.60 | 0.55 | 0.50 | x |
| | | p | | | | | | | | | | | |

Critical Values for the Mann-Whitney U-Test

Level of significance: 5% (P = 0.05)

| | | Size of the largest sample (n ₂) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----|--|---|---|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | |
| Size of the smallest sample (n ₁) | 3 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 | 13 | 13 | | |
| | 4 | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | | |
| | 5 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 11 | 12 | 13 | 14 | 15 | 17 | 18 | 19 | 20 | 22 | 23 | 24 | 25 | 27 | 28 | 29 | 30 | 32 | 33 | | |
| | 6 | | 5 | 6 | 8 | 10 | 11 | 13 | 14 | 16 | 17 | 19 | 21 | 22 | 24 | 25 | 27 | 29 | 30 | 32 | 33 | 35 | 37 | 38 | 40 | 42 | 43 | | |
| | 7 | | | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 | | |
| | 8 | | | | 13 | 15 | 17 | 19 | 22 | 24 | 26 | 29 | 31 | 34 | 36 | 38 | 41 | 43 | 45 | 48 | 50 | 53 | 55 | 57 | 60 | 62 | 65 | | |
| | 9 | | | | | 17 | 20 | 23 | 26 | 28 | 31 | 34 | 37 | 39 | 42 | 45 | 48 | 50 | 53 | 56 | 59 | 62 | 64 | 67 | 70 | 73 | 76 | | |
| | 10 | | | | | | 23 | 26 | 29 | 33 | 36 | 39 | 42 | 45 | 48 | 52 | 55 | 58 | 61 | 64 | 67 | 71 | 74 | 77 | 80 | 83 | 87 | | |
| | 11 | | | | | | | 30 | 33 | 37 | 40 | 44 | 47 | 51 | 55 | 58 | 62 | 65 | 69 | 73 | 76 | 80 | 83 | 87 | 90 | 94 | 98 | | |
| | 12 | | | | | | | | 37 | 41 | 45 | 49 | 53 | 57 | 61 | 65 | 69 | 73 | 77 | 81 | 85 | 89 | 93 | 97 | 101 | 105 | 109 | | |
| | 13 | | | | | | | | | 45 | 50 | 54 | 59 | 63 | 67 | 72 | 76 | 80 | 85 | 89 | 94 | 98 | 102 | 107 | 111 | 116 | 120 | | |
| | 14 | | | | | | | | | | 55 | 59 | 64 | 67 | 74 | 78 | 83 | 88 | 93 | 98 | 102 | 107 | 112 | 118 | 122 | 127 | 131 | | |
| | 15 | | | | | | | | | | | 64 | 70 | 75 | 80 | 85 | 90 | 96 | 101 | 106 | 111 | 117 | 122 | 125 | 132 | 138 | 143 | | |
| | 16 | | | | | | | | | | | | 75 | 81 | 86 | 92 | 98 | 103 | 109 | 115 | 120 | 126 | 132 | 138 | 143 | 149 | 154 | | |
| | 17 | | | | | | | | | | | | | 87 | 93 | 99 | 105 | 111 | 117 | 123 | 129 | 135 | 141 | 147 | 154 | 160 | 166 | | |
| | 18 | | | | | | | | | | | | | | 99 | 106 | 112 | 119 | 125 | 132 | 138 | 145 | 151 | 158 | 164 | 171 | 177 | | |
| | 19 | | | | | | | | | | | | | | | 113 | 119 | 126 | 133 | 140 | 147 | 154 | 161 | 168 | 175 | 182 | 189 | | |
| | 20 | | | | | | | | | | | | | | | | 127 | 134 | 141 | 149 | 156 | 163 | 171 | 178 | 186 | 193 | 200 | | |
| | 21 | | | | | | | | | | | | | | | | | 142 | 150 | 157 | 165 | 173 | 181 | 188 | 196 | 204 | 212 | | |
| | 22 | | | | | | | | | | | | | | | | | | 158 | 166 | 174 | 182 | 191 | 199 | 207 | 215 | 223 | | |
| | 23 | | | | | | | | | | | | | | | | | | | 175 | 183 | 192 | 200 | 209 | 218 | 226 | 235 | | |
| | 24 | | | | | | | | | | | | | | | | | | | | 192 | 201 | 210 | 219 | 228 | 238 | 247 | | |
| | 25 | | | | | | | | | | | | | | | | | | | | | 211 | 220 | 230 | 239 | 249 | 258 | | |
| | 26 | | | | | | | | | | | | | | | | | | | | | | 230 | 240 | 250 | 260 | 270 | | |
| | 27 | | | | | | | | | | | | | | | | | | | | | | | 250 | 261 | 271 | 282 | | |
| | 28 | | | | | | | | | | | | | | | | | | | | | | | | 272 | 282 | 293 | | |
| | 29 | | | | | | | | | | | | | | | | | | | | | | | | | 294 | 305 | | |
| | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | 317 | | |

Wartości krytyczne T testu Wilcoxona dla par wiązanych. Tablica przystosowana dla mniejszej z dwóch wartości statystyki T

| N | Poziom istotności, kierunek określony | | |
|----|--|------|-------|
| | 0,025 | 0,01 | 0,005 |
| | Poziom istotności, kierunek nieokreślony | | |
| | 0,05 | 0,02 | 0,01 |
| 6 | 0 | - | - |
| 7 | 2 | 0 | - |
| 8 | 4 | 2 | 0 |
| 9 | 6 | 3 | 2 |
| 10 | 8 | 5 | 3 |
| 11 | 11 | 7 | 5 |
| 12 | 14 | 10 | 7 |
| 13 | 17 | 13 | 10 |
| 14 | 21 | 16 | 13 |
| 15 | 25 | 20 | 16 |
| 16 | 30 | 24 | 20 |
| 17 | 35 | 28 | 23 |
| 18 | 40 | 33 | 28 |
| 19 | 46 | 38 | 32 |
| 20 | 52 | 43 | 38 |
| 21 | 59 | 49 | 43 |
| 22 | 66 | 56 | 49 |
| 23 | 73 | 62 | 55 |
| 24 | 81 | 69 | 61 |
| 25 | 89 | 77 | 68 |

Wartości krytyczne $F_{(\alpha, v_1, v_2)}$ rozkładu F- Snedecora dla $\alpha = 0,05$

| $v_2 \setminus v_1$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 25 | 30 | 40 | 60 | 80 | 100 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 161,5 | 199,5 | 215,7 | 224,6 | 230,2 | 234,0 | 236,8 | 238,9 | 240,5 | 241,9 | 243,9 | 245,4 | 246,5 | 247,3 | 248,0 | 249,3 | 250,1 | 251,1 | 252,2 | 252,7 | 253,0 |
| 2 | 18,51 | 19,00 | 19,16 | 19,25 | 19,30 | 19,33 | 19,35 | 19,37 | 19,38 | 19,40 | 19,41 | 19,42 | 19,43 | 19,44 | 19,45 | 19,46 | 19,46 | 19,47 | 19,48 | 19,48 | 19,49 |
| 3 | 10,13 | 9,55 | 9,28 | 9,12 | 9,01 | 8,94 | 8,89 | 8,85 | 8,81 | 8,79 | 8,74 | 8,71 | 8,69 | 8,67 | 8,66 | 8,63 | 8,62 | 8,59 | 8,57 | 8,56 | 8,55 |
| 4 | 7,71 | 6,94 | 6,59 | 6,39 | 6,26 | 6,16 | 6,09 | 6,04 | 6,00 | 5,96 | 5,91 | 5,87 | 5,84 | 5,82 | 5,80 | 5,77 | 5,75 | 5,72 | 5,69 | 5,67 | 5,66 |
| 5 | 6,61 | 5,79 | 5,41 | 5,19 | 5,05 | 4,95 | 4,88 | 4,82 | 4,77 | 4,74 | 4,68 | 4,64 | 4,60 | 4,58 | 4,56 | 4,52 | 4,50 | 4,46 | 4,43 | 4,41 | 4,41 |
| 6 | 5,99 | 5,14 | 4,76 | 4,53 | 4,39 | 4,28 | 4,21 | 4,15 | 4,10 | 4,06 | 4,00 | 3,96 | 3,92 | 3,90 | 3,87 | 3,83 | 3,81 | 3,77 | 3,74 | 3,72 | 3,71 |
| 7 | 5,59 | 4,74 | 4,35 | 4,12 | 3,97 | 3,87 | 3,79 | 3,73 | 3,68 | 3,64 | 3,57 | 3,53 | 3,49 | 3,47 | 3,44 | 3,40 | 3,38 | 3,34 | 3,30 | 3,29 | 3,27 |
| 8 | 5,32 | 4,46 | 4,07 | 3,84 | 3,69 | 3,58 | 3,50 | 3,44 | 3,39 | 3,35 | 3,28 | 3,24 | 3,20 | 3,17 | 3,15 | 3,11 | 3,08 | 3,04 | 3,01 | 2,99 | 2,97 |
| 9 | 5,12 | 4,26 | 3,86 | 3,63 | 3,48 | 3,37 | 3,29 | 3,23 | 3,18 | 3,14 | 3,07 | 3,03 | 2,99 | 2,96 | 2,94 | 2,89 | 2,86 | 2,83 | 2,79 | 2,77 | 2,76 |
| 10 | 4,96 | 4,10 | 3,71 | 3,48 | 3,33 | 3,22 | 3,14 | 3,07 | 3,02 | 2,98 | 2,91 | 2,86 | 2,83 | 2,80 | 2,77 | 2,73 | 2,70 | 2,66 | 2,62 | 2,60 | 2,59 |
| 12 | 4,75 | 3,89 | 3,49 | 3,26 | 3,11 | 3,00 | 2,91 | 2,85 | 2,80 | 2,75 | 2,69 | 2,64 | 2,60 | 2,57 | 2,54 | 2,50 | 2,47 | 2,43 | 2,38 | 2,36 | 2,35 |
| 14 | 4,60 | 3,74 | 3,34 | 3,11 | 2,96 | 2,85 | 2,76 | 2,70 | 2,65 | 2,60 | 2,53 | 2,48 | 2,44 | 2,41 | 2,39 | 2,34 | 2,31 | 2,27 | 2,22 | 2,20 | 2,19 |
| 16 | 4,49 | 3,63 | 3,24 | 3,01 | 2,85 | 2,74 | 2,66 | 2,59 | 2,54 | 2,49 | 2,42 | 2,37 | 2,33 | 2,30 | 2,28 | 2,23 | 2,19 | 2,15 | 2,11 | 2,08 | 2,07 |
| 18 | 4,41 | 3,55 | 3,16 | 2,93 | 2,77 | 2,66 | 2,58 | 2,51 | 2,46 | 2,41 | 2,34 | 2,29 | 2,25 | 2,22 | 2,19 | 2,14 | 2,11 | 2,06 | 2,02 | 1,99 | 1,98 |
| 20 | 4,35 | 3,49 | 3,10 | 2,87 | 2,71 | 2,60 | 2,51 | 2,45 | 2,39 | 2,35 | 2,28 | 2,22 | 2,18 | 2,15 | 2,12 | 2,07 | 2,04 | 1,99 | 1,95 | 1,92 | 1,91 |
| 22 | 4,30 | 3,44 | 3,05 | 2,82 | 2,66 | 2,55 | 2,46 | 2,40 | 2,34 | 2,30 | 2,23 | 2,17 | 2,13 | 2,10 | 2,07 | 2,02 | 1,98 | 1,96 | 1,94 | 1,89 | 1,86 |
| 24 | 4,26 | 3,40 | 3,01 | 2,78 | 2,62 | 2,51 | 2,42 | 2,36 | 2,30 | 2,25 | 2,18 | 2,13 | 2,09 | 2,05 | 2,03 | 1,97 | 1,94 | 1,91 | 1,89 | 1,84 | 1,82 |
| 26 | 4,23 | 3,37 | 2,98 | 2,74 | 2,59 | 2,47 | 2,39 | 2,32 | 2,27 | 2,22 | 2,15 | 2,09 | 2,05 | 2,02 | 1,99 | 1,94 | 1,90 | 1,87 | 1,85 | 1,80 | 1,78 |
| 28 | 4,20 | 3,34 | 2,95 | 2,71 | 2,56 | 2,45 | 2,36 | 2,29 | 2,24 | 2,19 | 2,12 | 2,06 | 2,02 | 1,99 | 1,96 | 1,91 | 1,87 | 1,84 | 1,82 | 1,77 | 1,74 |
| 30 | 4,17 | 3,32 | 2,92 | 2,69 | 2,53 | 2,42 | 2,33 | 2,27 | 2,21 | 2,16 | 2,09 | 2,04 | 1,99 | 1,96 | 1,93 | 1,88 | 1,84 | 1,79 | 1,74 | 1,71 | 1,70 |
| 35 | 4,12 | 3,27 | 2,87 | 2,64 | 2,49 | 2,37 | 2,29 | 2,22 | 2,16 | 2,11 | 2,04 | 1,99 | 1,94 | 1,91 | 1,88 | 1,82 | 1,79 | 1,74 | 1,68 | 1,65 | 1,63 |
| 40 | 4,08 | 3,23 | 2,84 | 2,61 | 2,45 | 2,34 | 2,25 | 2,18 | 2,12 | 2,08 | 2,00 | 1,95 | 1,90 | 1,87 | 1,84 | 1,78 | 1,74 | 1,69 | 1,64 | 1,61 | 1,59 |
| 60 | 4,00 | 3,15 | 2,76 | 2,53 | 2,37 | 2,25 | 2,17 | 2,10 | 2,04 | 1,99 | 1,92 | 1,86 | 1,82 | 1,78 | 1,75 | 1,69 | 1,65 | 1,59 | 1,53 | 1,50 | 1,48 |
| 80 | 3,96 | 3,11 | 2,72 | 2,49 | 2,33 | 2,21 | 2,13 | 2,06 | 2,00 | 1,95 | 1,88 | 1,82 | 1,77 | 1,73 | 1,70 | 1,64 | 1,60 | 1,54 | 1,48 | 1,45 | 1,43 |
| 100 | 3,94 | 3,09 | 2,70 | 2,46 | 2,31 | 2,19 | 2,10 | 2,03 | 1,97 | 1,93 | 1,85 | 1,79 | 1,75 | 1,71 | 1,68 | 1,62 | 1,57 | 1,52 | 1,45 | 1,41 | 1,39 |

Wartości krytyczne $F_{(\alpha, v_1, v_2)}$ rozkładu F- Snedecora dla $\alpha = 0,025$

| $v_2 \setminus v_1$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 25 | 30 | 40 | 60 | 80 | 100 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 648 | 800 | 864 | 900 | 922 | 937 | 948 | 957 | 963 | 969 | 977 | 983 | 987 | 990 | 993 | 998 | 1001 | 1006 | 1010 | 1012 | 1013 |
| 2 | 38,51 | 39,00 | 39,17 | 39,25 | 39,30 | 39,33 | 39,36 | 39,37 | 39,39 | 39,40 | 39,41 | 39,43 | 39,44 | 39,44 | 39,45 | 39,46 | 39,46 | 39,47 | 39,48 | 39,49 | 39,49 |
| 3 | 17,44 | 16,04 | 15,44 | 15,10 | 14,88 | 14,73 | 14,62 | 14,54 | 14,47 | 14,42 | 14,34 | 14,28 | 14,23 | 14,20 | 14,17 | 14,12 | 14,08 | 14,04 | 13,99 | 13,97 | 13,96 |
| 4 | 12,22 | 10,65 | 9,98 | 9,60 | 9,36 | 9,20 | 9,07 | 8,98 | 8,90 | 8,84 | 8,75 | 8,68 | 8,63 | 8,59 | 8,56 | 8,50 | 8,46 | 8,41 | 8,36 | 8,33 | 8,32 |
| 5 | 10,01 | 8,43 | 7,76 | 7,39 | 7,15 | 6,98 | 6,85 | 6,76 | 6,68 | 6,62 | 6,52 | 6,46 | 6,40 | 6,36 | 6,33 | 6,27 | 6,23 | 6,18 | 6,12 | 6,10 | 6,08 |
| 6 | 8,81 | 7,26 | 6,60 | 6,23 | 5,99 | 5,82 | 5,70 | 5,60 | 5,52 | 5,46 | 5,37 | 5,30 | 5,24 | 5,20 | 5,17 | 5,11 | 5,07 | 5,01 | 4,96 | 4,93 | 4,92 |
| 7 | 8,07 | 6,54 | 5,89 | 5,52 | 5,29 | 5,12 | 4,99 | 4,90 | 4,82 | 4,76 | 4,67 | 4,60 | 4,54 | 4,50 | 4,47 | 4,40 | 4,36 | 4,31 | 4,25 | 4,23 | 4,21 |
| 8 | 7,57 | 6,06 | 5,42 | 5,05 | 4,82 | 4,65 | 4,53 | 4,43 | 4,36 | 4,30 | 4,20 | 4,13 | 4,08 | 4,03 | 4,00 | 3,94 | 3,89 | 3,84 | 3,78 | 3,76 | 3,74 |
| 9 | 7,21 | 5,71 | 5,08 | 4,72 | 4,48 | 4,32 | 4,20 | 4,10 | 4,03 | 3,96 | 3,87 | 3,80 | 3,74 | 3,70 | 3,67 | 3,60 | 3,56 | 3,51 | 3,45 | 3,42 | 3,40 |
| 10 | 6,94 | 5,46 | 4,83 | 4,47 | 4,24 | 4,07 | 3,95 | 3,85 | 3,78 | 3,72 | 3,62 | 3,55 | 3,50 | 3,45 | 3,42 | 3,35 | 3,31 | 3,26 | 3,20 | 3,17 | 3,15 |
| 12 | 6,55 | 5,10 | 4,47 | 4,12 | 3,89 | 3,73 | 3,61 | 3,51 | 3,44 | 3,37 | 3,28 | 3,21 | 3,15 | 3,11 | 3,07 | 3,01 | 2,96 | 2,91 | 2,85 | 2,82 | 2,80 |
| 14 | 6,30 | 4,86 | 4,24 | 3,89 | 3,66 | 3,50 | 3,38 | 3,29 | 3,21 | 3,15 | 3,05 | 2,98 | 2,92 | 2,88 | 2,84 | 2,78 | 2,73 | 2,67 | 2,61 | 2,58 | 2,56 |
| 16 | 6,12 | 4,69 | 4,08 | 3,73 | 3,50 | 3,34 | 3,22 | 3,12 | 3,05 | 2,99 | 2,89 | 2,82 | 2,76 | 2,72 | 2,68 | 2,61 | 2,57 | 2,51 | 2,45 | 2,42 | 2,40 |
| 18 | 5,98 | 4,56 | 3,95 | 3,61 | 3,38 | 3,22 | 3,10 | 3,01 | 2,93 | 2,87 | 2,77 | 2,70 | 2,64 | 2,60 | 2,56 | 2,49 | 2,44 | 2,38 | 2,32 | 2,29 | 2,27 |
| 20 | 5,87 | 4,46 | 3,86 | 3,51 | 3,29 | 3,13 | 3,01 | 2,91 | 2,84 | 2,77 | 2,68 | 2,60 | 2,55 | 2,50 | 2,46 | 2,40 | 2,35 | 2,29 | 2,22 | 2,19 | 2,17 |
| 22 | 5,79 | 4,38 | 3,78 | 3,44 | 3,22 | 3,05 | 2,93 | 2,84 | 2,76 | 2,70 | 2,60 | 2,53 | 2,47 | 2,43 | 2,39 | 2,32 | 2,27 | 2,21 | 2,14 | 2,11 | 2,09 |
| 24 | 5,72 | 4,32 | 3,72 | 3,38 | 3,15 | 2,99 | 2,87 | 2,78 | 2,70 | 2,64 | 2,54 | 2,47 | 2,41 | 2,36 | 2,33 | 2,26 | 2,21 | 2,15 | 2,08 | 2,05 | 2,02 |
| 26 | 5,66 | 4,27 | 3,67 | 3,33 | 3,10 | 2,94 | 2,82 | 2,73 | 2,65 | 2,59 | 2,49 | 2,42 | 2,36 | 2,31 | 2,28 | 2,21 | 2,16 | 2,09 | 2,03 | 1,99 | 1,97 |
| 28 | 5,61 | 4,22 | 3,63 | 3,29 | 3,06 | 2,90 | 2,78 | 2,69 | 2,61 | 2,55 | 2,45 | 2,37 | 2,32 | 2,27 | 2,23 | 2,16 | 2,11 | 2,05 | 1,98 | 1,94 | 1,92 |
| 30 | 5,57 | 4,18 | 3,59 | 3,25 | 3,03 | 2,87 | 2,75 | 2,65 | 2,57 | 2,51 | 2,41 | 2,34 | 2,28 | 2,23 | 2,20 | 2,12 | 2,07 | 2,01 | 1,94 | 1,90 | 1,88 |
| 35 | 5,48 | 4,11 | 3,52 | 3,18 | 2,96 | 2,80 | 2,68 | 2,58 | 2,50 | 2,44 | 2,34 | 2,27 | 2,21 | 2,16 | 2,12 | 2,05 | 2,00 | 1,93 | 1,86 | 1,82 | 1,80 |
| 40 | 5,42 | 4,05 | 3,46 | 3,13 | 2,90 | 2,74 | 2,62 | 2,53 | 2,45 | 2,39 | 2,29 | 2,21 | 2,15 | 2,11 | 2,07 | 1,99 | 1,94 | 1,88 | 1,80 | 1,76 | 1,74 |
| 60 | 5,29 | 3,93 | 3,34 | 3,01 | 2,79 | 2,63 | 2,51 | 2,41 | 2,33 | 2,27 | 2,17 | 2,09 | 2,03 | 1,98 | 1,94 | 1,87 | 1,82 | 1,74 | 1,67 | 1,63 | 1,60 |
| 80 | 5,22 | 3,86 | 3,28 | 2,95 | 2,73 | 2,57 | 2,45 | 2,35 | 2,28 | 2,21 | 2,11 | 2,03 | 1,97 | 1,92 | 1,88 | 1,81 | 1,75 | 1,68 | 1,60 | 1,55 | 1,53 |
| 100 | 5,18 | 3,83 | 3,25 | 2,92 | 2,70 | 2,54 | 2,42 | 2,32 | 2,24 | 2,18 | 2,08 | 2,00 | 1,94 | 1,89 | 1,85 | 1,77 | 1,71 | 1,64 | 1,56 | 1,51 | 1,48 |