



UNIVERSIDAD DE
COSTA RICA

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Escuela de
**Administración de
Negocios**

TABLAS ESTADÍSTICAS

Índice

| | |
|--|----|
| TABLA 1. FACTORES PARA GRÁFICAS DE CONTROL | 3 |
| TABLA 2. ÁREAS BAJO LA CURVA NORMAL | 4 |
| TABLA 3. VALORES CRÍTICOS DE LA DISTRIBUCIÓN CHI CUADRADA..... | 6 |
| TABLA 4. VALORES CRÍTICOS DE LA DISTRIBUCIÓN F $0.05(V_1, V_2)$ | 8 |
| TABLA 5. VALORES CRÍTICOS DE LA DISTRIBUCIÓN F $0.01(V_1, V_2)$ | 10 |
| TABLA 6. VALORES CRÍTICOS DE D EN LA PRUEBA DE BONDAD DE AJUSTE DE KOLMOGOROV- SMIRNOV ² | 12 |
| TABLA 7. DISTRIBUCIÓN DE POISSON ACUMULADA..... | 13 |
| TABLA 8. DISTRIBUCIÓN T DE STUDENT. | 18 |
| TABLA 9. PUNTOS PORCENTUALES DEL ESTADÍSTICO RANGO ESTUDENTIZADO (5%) PARA LA PRUEBA DE TUKEY | 19 |
| TABLA 10. SUMAS DE PROBABILIDADES BINOMIAL $\sum B(X;N,P)$ | 20 |

Tabla 1. Factores para Gráficas de Control

| Factores Para Gráficos de Control por Variables | | | | | | | | | | | | | |
|--|------------------|------|-------------------|------|------|------|------|-------|------------------------------|-----------------|-----------------|-----------------|-----------------|
| | Promedios | | Intervalos | | | | | | Desviaciones Normales | | | | |
| n | A1 | A2 | d2 | d3 | D1 | D2 | D3 | D4 | c2 | B1 | B2 | B3 | B4 |
| 2 | 3.76 | 1.88 | 1.13 | 0.89 | 0 | 3.69 | 0 | 3.27 | 0.56 | 0 | 1.84 | 0 | 1.27 |
| 3 | 2.39 | 1.02 | 1.69 | 0.88 | 0 | 4.36 | 0 | 2.57 | 0.72 | 0 | 1.86 | 0 | 2.57 |
| 4 | 1.88 | 0.73 | 2.06 | 0.86 | 0 | 4.70 | 0 | 2.28 | 0.80 | 0 | 1.81 | 0 | 2.27 |
| 5 | 1.60 | 0.58 | 2.33 | 0.85 | 0 | 4.92 | 0 | 2.111 | 0.84 | 0 | 1.76 | 0 | 2.09 |
| 6 | 1.41 | 0.48 | 2.53 | 0.85 | 0 | 5.08 | 0 | 2.00 | 0.87 | 0.03 | 1.71 | 0.03 | 1.97 |
| 7 | 1.28 | 0.42 | 2.70 | 0.83 | 0.2 | 5.20 | 0.08 | 1.92 | 0.89 | 0.10 | 1.67 | 0.12 | 1.88 |
| 8 | 1.17 | 0.37 | 2.85 | 0.82 | 0.39 | 5.31 | 0.14 | 1.86 | 0.90 | 0.17 | 1.64 | 0.18 | 1.81 |
| 9 | 1.09 | 0.34 | 2.97 | 0.81 | 0.55 | 5.39 | 0.18 | 1.82 | 0.91 | 0.22 | 1.61 | 0.24 | 1.76 |
| 10 | 1.03 | 0.31 | 3.08 | 0.80 | 0.69 | 5.47 | 0.22 | 1.78 | 0.92 | 0.26 | 1.58 | 0.28 | 1.72 |
| 11 | 0.97 | 0.29 | 3.17 | 0.79 | 0.81 | 5.53 | 0.26 | 1.74 | 0.93 | 0.30 | 1.56 | 0.32 | 1.68 |
| 12 | 0.92 | 0.27 | 3.26 | 0.78 | 0.92 | 5.59 | 0.28 | 1.72 | 0.94 | 0.33 | 1.54 | 0.35 | 1.62 |
| 13 | 0.88 | 0.25 | 3.34 | 0.77 | 1.03 | 5.65 | 0.33 | 1.69 | 0.94 | 0.36 | 1.52 | 0.38 | 1.65 |
| 14 | 0.85 | 0.23 | 3.41 | 0.76 | 1.12 | 5.69 | 0.31 | 1.67 | 0.95 | 0.38 | 1.51 | 0.41 | 1.59 |
| 15 | 0.82 | 0.22 | 3.47 | 0.75 | 1.21 | 5.74 | 0.35 | 1.65 | 0.95 | 0.41 | 1.49 | 0.43 | 1.57 |
| 16 | 0.79 | 0.21 | 3.53 | 0.75 | 1.28 | 5.78 | 0.36 | 1.64 | 0.95 | 0.43 | 1.48 | 0.45 | 1.55 |
| 17 | 0.76 | 0.20 | 3.59 | 0.74 | 1.36 | 5.82 | 0.38 | 1.62 | 0.96 | 0.44 | 1.46 | 0.47 | 1.53 |
| 18 | 0.74 | 0.19 | 3.64 | 0.74 | 1.43 | 5.85 | 0.39 | 1.61 | 0.96 | 0.46 | 1.45 | 0.48 | 1.52 |
| 19 | 0.72 | 0.19 | 3.69 | 0.73 | 1.49 | 5.89 | 0.40 | 1.60 | 0.96 | 0.48 | 1.44 | 0.50 | 1.50 |
| 20 | 0.70 | 0.18 | 3.73 | 0.73 | 1.55 | 5.92 | 0.41 | 1.59 | 0.96 | 0.49 | 1.43 | 0.51 | 1.49 |
| 21 | 0.68 | 0.17 | 3.78 | 0.72 | 1.61 | 5.95 | 0.42 | 1.57 | 0.96 | 0.50 | 1.42 | 0.52 | 1.48 |
| 22 | 0.66 | 0.17 | 3.82 | 0.72 | 1.66 | 5.98 | 0.43 | 1.57 | 0.97 | 0.52 | 1.41 | 0.53 | 1.47 |
| 23 | 0.65 | 0.16 | 3.86 | 0.72 | 1.71 | 6.00 | 0.44 | 1.56 | 0.97 | 0.53 | 1.41 | 0.54 | 1.45 |
| 24 | 0.63 | 0.16 | 3.90 | 0.71 | 1.76 | 6.03 | 0.45 | 1.55 | 0.97 | 0.54 | 1.40 | 0.55 | 1.44 |
| 25 | 0.62 | 0.15 | 3.93 | 0.71 | 1.80 | 6.06 | 0.46 | 1.54 | 0.97 | 0.55 | 1.39 | 0.56 | 1.43 |
| + de 25 | $3/\sqrt{n}$ | -- | -- | -- | -- | -- | -- | -- | 1 | $1-3/\sqrt{2n}$ | $1+3/\sqrt{2n}$ | $1-3/\sqrt{2n}$ | $1+3/\sqrt{2n}$ |

Tabla 2. Áreas bajo la curva normal

| z | .00 | .01 | .02 | .03 | .04 | .05 | .06 | .07 | 0.08 | 0.09 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -3.4 | .0003 | .0003 | .0003 | .0003 | .0003 | .0003 | .0003 | .0003 | .0003 | .0002 |
| -3.3 | .0005 | .0005 | .0005 | .0004 | .0004 | .0004 | .0004 | .0004 | .0004 | .0003 |
| -3.2 | .0007 | .0007 | .0006 | .0006 | .0006 | .0006 | .0006 | .0005 | .0005 | .0005 |
| -3.1 | .0010 | .0009 | .0009 | .0009 | .0008 | .0008 | .0008 | .0008 | .0007 | .0007 |
| -3.0 | .0013 | .0013 | .0013 | .0012 | .0012 | .0011 | .0011 | .0011 | .0010 | .0010 |
| | | | | | | | | | | |
| -2.9 | .0019 | .0018 | .0017 | .0017 | .0016 | .0016 | .0015 | .0015 | .0014 | .0014 |
| -2.8 | .0026 | .0025 | .0024 | .0023 | .0023 | .0022 | .0021 | .0021 | .0020 | .0019 |
| -2.7 | .0035 | .0034 | .0033 | .0032 | .0031 | .0030 | .0029 | .0028 | .0027 | .0026 |
| -2.6 | .0047 | .0045 | .0044 | .0043 | .0041 | .0040 | .0039 | .0038 | .0037 | .0036 |
| -2.5 | .0062 | .0060 | .0059 | .0057 | .0055 | .0054 | .0052 | .0051 | .0049 | .0048 |
| | | | | | | | | | | |
| -2.4 | .0082 | .0080 | .0078 | .0075 | .0073 | .0071 | .0069 | .0068 | .0066 | .0064 |
| -2.3 | .0107 | .0104 | .0102 | .0099 | .0096 | .0094 | .0091 | .0089 | .0087 | .0084 |
| -2.2 | .0139 | .0136 | .0132 | .0129 | 0.125 | 0.122 | .0119 | .0116 | .0113 | .0110 |
| -2.1 | .0179 | .0174 | .0170 | .0166 | .0162 | .0158 | .0154 | .0150 | .0146 | .0143 |
| -2.0 | .0228 | .0222 | .0217 | .0212 | .0207 | .0202 | .0197 | .0192 | .0188 | .0183 |
| | | | | | | | | | | |
| -1.9 | .0287 | .0281 | .0274 | .0268 | .0262 | .0256 | .0250 | .0244 | .0239 | .0233 |
| -1.8 | .0359 | .0352 | .0344 | .0336 | .0329 | .0322 | .0314 | .0307 | .0301 | .0294 |
| -1.7 | .0446 | .0436 | .0427 | .0418 | .0409 | .0401 | .0392 | .0384 | 0.375 | .0367 |
| -1.6 | .0548 | .0537 | .0526 | .0516 | .0505 | .495 | .0485 | .0475 | .0465 | .0455 |
| -1.5 | .0668 | .0655 | .0643 | .0630 | .0618 | .0606 | .0594 | .0582 | .0571 | .0559 |
| | | | | | | | | | | |
| -1.4 | .0808 | .0793 | .0778 | .0764 | .0749 | .0735 | .0722 | .0708 | .0694 | .0681 |
| -1.3 | .0968 | .0951 | .0934 | .0918 | .0901 | .0885 | .0869 | .0853 | .0838 | .0823 |
| -1.2 | .1151 | .1131 | .1112 | .1093 | .1075 | .1056 | .1038 | .1020 | .1003 | .0985 |
| -1.1 | .1357 | .1335 | .1314 | .1292 | .1271 | .1251 | .1230 | .1210 | .1190 | .1170 |
| -1.0 | .1587 | .1562 | .1539 | .1515 | .1492 | .1469 | .1446 | .1423 | .1401 | .1379 |
| | | | | | | | | | | |
| -0.9 | .1841 | .1814 | .1788 | .1762 | .1736 | .1711 | .1685 | .1660 | .1635 | .1611 |
| -0.8 | .2119 | .2090 | .2061 | .2033 | .2005 | .1977 | .1949 | .1922 | .1894 | .1867 |
| -0.7 | .2420 | .2389 | .2358 | .2327 | .2296 | .2266 | .2236 | .2206 | .2177 | .2148 |
| -0.6 | .2743 | .2709 | .2676 | .2643 | .2611 | .2578 | .2546 | .2514 | .2483 | .2451 |
| -0.5 | .3085 | .3050 | .3015 | .2981 | .2946 | .2912 | .2877 | .2843 | .2810 | .2776 |
| | | | | | | | | | | |
| -0.4 | .3446 | .3409 | .3372 | .3336 | .3300 | .3264 | .3228 | .3192 | .3156 | .3121 |
| -0.3 | .3821 | .3783 | .3745 | .3707 | .3669 | .3632 | .3594 | .3557 | .3520 | .3483 |
| -0.2 | .4207 | .4168 | .4129 | .4090 | .4052 | .4013 | .3974 | .3936 | .3897 | .3859 |
| -0.1 | .4602 | .4562 | .4522 | .4483 | .4443 | .4404 | .4364 | .4325 | .4286 | .4247 |
| -0.0 | .5000 | .4960 | .4920 | .4880 | .4840 | .4801 | .4761 | .4721 | .4681 | .4641 |

Tabla 2. (Continuación) Áreas bajo la curva normal

| z | .00 | .01 | .02 | .03 | .04 | .05 | .06 | .07 | 0.08 | 0.09 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0 | .5000 | .5040 | .5080 | .5120 | .5160 | .5199 | .5239 | .5279 | .5319 | .5359 |
| 0.1 | .5398 | .5438 | .5478 | .5517 | .5557 | .5596 | .5636 | .5675 | .5714 | .5753 |
| 0.2 | .5793 | .5832 | .5871 | .5910 | .5948 | .5987 | .6026 | .6065 | .6103 | .6141 |
| 0.3 | .6179 | .6217 | .6255 | .6293 | .6331 | .6368 | .6406 | .6443 | .6480 | .6517 |
| 0.4 | .6554 | .6591 | .6628 | .6664 | .6700 | .6736 | .6772 | .6808 | .6844 | .6879 |
| | | | | | | | | | | |
| 0.5 | .6915 | .6950 | .6985 | .7019 | .7054 | .7088 | .7123 | .7157 | .7190 | .7224 |
| 0.6 | .7257 | .7291 | .7324 | .7357 | .7389 | .7422 | .7454 | .7486 | .7517 | .7549 |
| 0.7 | .7580 | .7611 | .7642 | .7673 | .7704 | .7734 | .7764 | .7794 | .7823 | .7852 |
| 0.8 | .7881 | .7910 | .7939 | .7967 | .7995 | .8023 | .8051 | .8078 | .8106 | .8133 |
| 0.9 | .8159 | .8186 | .8212 | .8238 | .8264 | .8289 | .8315 | .8340 | .8365 | .8389 |
| | | | | | | | | | | |
| 1.0 | .8413 | .8438 | .8461 | .8485 | .8508 | .8531 | .8554 | .8577 | .8599 | .8621 |
| 1.1 | .8643 | .8665 | .8686 | .8708 | .8729 | .8749 | .8770 | .8790 | .8810 | .8830 |
| 1.2 | .8849 | .8869 | .8888 | .8907 | .8925 | .8944 | .8962 | .8980 | .8997 | .9015 |
| 1.3 | .9032 | .9049 | .9066 | .9082 | .9099 | .9115 | .9131 | .9147 | .9162 | .9177 |
| 1.4 | .9192 | .9207 | .9222 | .9236 | .9251 | .9265 | .9278 | .9292 | .9306 | .9319 |
| | | | | | | | | | | |
| 1.5 | .9332 | .9345 | .9357 | .9370 | .9382 | .9394 | .9406 | .9418 | .9429 | .9441 |
| 1.6 | .9452 | .9463 | .9474 | .9484 | .9495 | .9505 | .9515 | .9525 | .9535 | .9545 |
| 1.7 | .9554 | .9564 | .9573 | .9582 | .9591 | .9599 | .9608 | .9616 | .9625 | .9633 |
| 1.8 | .9641 | .9649 | .9656 | .9664 | .9671 | .9678 | .9686 | .9693 | .9699 | .9706 |
| 1.9 | .9713 | .9719 | .9726 | .9732 | .9738 | .9744 | .9750 | .9756 | .9761 | .9767 |
| | | | | | | | | | | |
| 2.0 | .9772 | .9778 | .9788 | .9788 | .9793 | .9798 | .9803 | .9808 | .9812 | .9817 |
| 2.1 | .9821 | .9826 | .9834 | .9834 | .9838 | .9842 | .9846 | .9850 | .9854 | .9857 |
| 2.2 | .9861 | .9864 | .9871 | .9871 | .9875 | .9878 | .9881 | .9884 | .9887 | .9890 |
| 2.3 | .9893 | .9896 | .9901 | .9901 | .9904 | .9906 | .9909 | .9911 | .9913 | .9916 |
| 2.4 | .9918 | .9920 | .9925 | .9925 | .9927 | .9929 | .9931 | .9932 | .9934 | .9936 |
| | | | | | | | | | | |
| 2.5 | .9938 | .9940 | .9941 | .9943 | .9945 | .9946 | .9948 | .9949 | .9951 | .9952 |
| 2.6 | .9953 | .9955 | .9956 | .9957 | .9959 | .9960 | .9961 | .9962 | .9963 | .9964 |
| 2.7 | .9965 | .9966 | .9967 | .9968 | .9969 | .9970 | .9971 | .9972 | .9973 | .9974 |
| 2.8 | .9974 | .9975 | .9976 | .9977 | .9977 | .9978 | .9979 | .9979 | .9980 | .9981 |
| 2.9 | .9981 | .9982 | .9982 | .9983 | .9984 | .9984 | .9985 | .9985 | .9986 | .9986 |
| | | | | | | | | | | |
| 3.0 | .9987 | .9987 | .9987 | .9988 | .9988 | .9989 | .9989 | .9989 | .9990 | .9990 |
| 3.1 | .9990 | .9991 | .9991 | .9991 | .9992 | .9992 | .9992 | .9992 | .9993 | .9993 |
| 3.2 | .9993 | .9993 | .9994 | .9994 | .9994 | .9994 | .9994 | .9995 | .9995 | .9995 |
| 3.3 | .9995 | .9995 | .9995 | .9996 | .9996 | .9996 | .9996 | .9996 | .9996 | .9997 |
| 3.4 | .9997 | .9997 | .9997 | .9997 | .9997 | .9997 | .9997 | .9997 | .9997 | .9998 |

Tabla 3. Valores críticos de la distribución Chi cuadrada

| v | X | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | .995 | .99 | .98 | .975 | .95 | .90 | .80 | .75 | .70 | .50 |
| 1 | .04393 | .03157 | .03628 | 0.3982 | 0.0393 | .0158 | 0.642 | 0.102 | 0.148 | 0.455 |
| 2 | .0100 | .0201 | .0404 | .0506 | 0.103 | 0.211 | 0.446 | 0.575 | 0.713 | 1.386 |
| 3 | .0717 | 0.115 | 0.185 | 0.216 | 0.352 | 0.584 | 1.005 | 1.213 | 1.424 | 2.366 |
| 4 | 0.207 | 0.297 | 0.429 | 0.484 | 0.711 | 1.064 | 1.649 | 1.923 | 2.195 | 3.357 |
| 5 | .0412 | 0.554 | 0.752 | 0.831 | 1.145 | 1.610 | 2.343 | 2.675 | 3.000 | 4.351 |
| 6 | 0.676 | 0.872 | 1.134 | 1.237 | 1.635 | 2.204 | 3.070 | 3.455 | 3.828 | 5.348 |
| 7 | 0.989 | 1.239 | 1.564 | 1.690 | 2.167 | 2.833 | 3.822 | 4.255 | 4.671 | 6.346 |
| 8 | 1.344 | 1.646 | .2032 | 2.180 | 2.733 | 3.490 | 4.594 | 5.071 | 5.527 | 7.344 |
| 9 | 1.735 | 2.088 | 2.532 | 2.700 | 3.325 | 4.168 | 5.380 | 5.899 | 6.393 | 8.343 |
| 10 | 2.156 | 2.558 | 3.059 | 3.247 | 3.940 | 4.865 | 6.179 | 6.737 | 7.267 | 9.342 |
| 11 | 2.603 | 3.053 | 3.609 | 3.816 | 4.575 | 5.578 | 6.989 | 7.584 | 8.148 | 10.341 |
| 12 | 3.074 | 3.571 | 4.178 | 4.404 | 5.226 | 6.304 | 7.807 | 8.438 | 9.034 | 11.340 |
| 13 | 3.565 | 4.107 | 4.765 | 5.009 | 5.892 | 7.042 | 8.634 | 9.299 | 9.926 | 12.340 |
| 14 | 4.075 | 4.660 | 5.368 | 5.629 | 6.571 | 7.790 | 9.467 | 10.165 | 10.821 | 13.339 |
| 15 | 4.601 | 5.229 | 5.985 | 6.262 | 7.261 | 8.547 | 10.307 | 11.036 | 11.721 | 14.339 |
| 16 | 5.142 | 5.812 | 6.614 | 6.908 | 7.962 | 9.312 | 11.152 | 11.912 | 12.624 | 15.338 |
| 17 | 5.697 | 6.408 | 7.255 | 7.564 | 8.672 | 10.085 | 12.002 | 12.792 | 13.531 | 16.338 |
| 18 | 6.265 | 7.015 | 7.906 | 8.231 | 9.390 | 10.865 | 12.857 | 13.675 | 14.440 | 17.338 |
| 19 | 6.844 | 7.633 | 8.567 | 8.907 | 10.117 | 11.651 | 13.716 | 14.562 | 15.352 | 18.338 |
| 20 | 7.434 | 8.260 | 9.237 | 9.591 | 10.851 | 12.443 | 14.578 | 15.452 | 16.266 | 19.337 |
| 21 | 8.034 | 8.897 | 9.915 | 10.283 | 11.591 | 13.240 | 15.445 | 16.344 | 17.182 | 20.337 |
| 22 | 8.643 | 9.542 | 10.600 | 10.982 | 12.338 | 14.041 | 16.314 | 17.240 | 18.101 | 21.337 |
| 23 | 9.260 | 10.196 | 11.293 | 11.688 | 13.091 | 14.848 | 17.187 | 18.137 | 19.021 | 22.337 |
| 24 | 9.886 | 10.856 | 11.992 | 12.401 | 13.848 | 15.659 | 18.062 | 19.037 | 19.943 | 23.337 |
| 25 | 10.520 | 11.524 | 12.697 | 13.120 | 14.611 | 16.473 | 18.940 | 19.939 | 20.867 | 24.337 |
| 26 | 11.160 | 12.198 | 13.409 | 13.844 | 15.379 | 17.292 | 19.820 | 20.843 | 21.792 | 25.336 |
| 27 | 11.808 | 12.879 | 14.125 | 14.573 | 16.151 | 18.114 | 20.703 | 21.749 | 22.719 | 26.336 |
| 28 | 12.461 | 13.565 | 14.847 | 15.308 | 16.928 | 18.939 | 21.588 | 22.657 | 23.647 | 27.336 |
| 29 | 13.121 | 14.256 | 15.574 | 16.047 | 17.708 | 19.768 | 22.475 | 23.567 | 24.577 | 28.336 |
| 30 | 13.787 | 14.953 | 16.306 | 16.791 | 18.493 | 20.599 | 23.364 | 24.478 | 25.508 | 29.336 |

Tabla 3. (Continuación) Valores críticos de la distribución Chi cuadrada

| v | X | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | .30 | .25 | .20 | .10 | .05 | .025 | .02 | .01 | .005 | .001 |
| 1 | 1.074 | 1.323 | .1642 | 2.706 | 3.841 | 5.024 | 5.412 | 6.635 | 7.879 | 10.827 |
| 2 | 2.408 | 2.773 | 3.219 | 4.605 | 5.991 | 7.378 | 7.824 | 9.210 | 10.597 | 13.815 |
| 3 | 3.665 | 4.108 | 4.642 | 6.251 | 7.815 | 9.348 | 9.837 | 11.345 | 12.838 | 16.268 |
| 4 | 4.878 | 5.385 | 5.989 | 7.779 | 9.488 | 11.143 | 11.668 | 13.277 | 14.860 | 18.465 |
| 5 | 6.064 | 6.626 | 7.289 | 9.236 | 11.070 | 12.832 | 13.388 | 15.086 | 16.750 | 20.517 |
| 6 | 7.231 | 7.841 | 8.558 | 10.645 | 12.592 | 14.449 | 15.033 | 16.812 | 18.548 | 22.457 |
| 7 | 8.383 | 9.037 | 9.803 | 12.017 | 14.067 | 16.013 | 16.622 | 18.475 | 20.278 | 24.322 |
| 8 | 9.524 | 10.219 | 11.030 | 13.362 | 15.507 | 17.535 | 18.168 | 20.090 | 21.955 | 26.125 |
| 9 | 10.656 | 11.389 | 12.242 | 14.684 | 16.919 | 19.023 | 19.679 | 21.666 | 23.589 | 27.877 |
| 10 | 11.781 | 12.549 | 13.442 | 15.987 | 18.307 | 20.483 | 21.161 | 23.209 | 25.188 | 29.588 |
| 11 | 12.899 | 13.701 | 14.631 | 17.275 | 19.675 | 21.920 | 22.618 | 24.725 | 26.757 | 31.264 |
| 12 | 14.011 | 14.845 | 15.812 | 18,549 | 21.026 | 23.337 | 24.054 | 26.217 | 28.300 | 32.909 |
| 13 | 15.119 | 15.984 | 16.985 | 19.812 | 22.362 | 24.736 | 25.472 | 27.688 | 29.819 | 34.528 |
| 14 | 16.222 | 17.117 | 18.151 | 21.064 | 23.685 | 26.119 | 26.873 | 29.141 | 31.319 | 36.123 |
| 15 | 17.322 | 18.245 | 19.311 | 22.307 | 24.996 | 27.488 | 28.259 | 30.578 | 32.801 | 37.697 |
| 16 | 18.418 | 19.369 | 20.465 | 23.542 | 26.296 | 28.845 | 29.633 | 32.000 | 34.267 | 39.252 |
| 17 | 19.511 | 20.489 | 21.615 | 24.769 | 27.587 | 30.191 | 30.955 | 33.409 | 35.718 | 40.790 |
| 18 | 20.601 | 21.605 | 22.760 | 25.989 | 28.869 | 31.526 | 32.346 | 34.805 | 37.156 | 42.312 |
| 19 | 21.689 | 22.718 | 23.900 | 27.204 | 30.144 | 32.852 | 33.687 | 36.191 | 38.582 | 43.820 |
| 20 | 22.775 | 23.828 | 25.038 | 28.412 | 31.410 | 34.170 | 35.020 | 37.566 | 39.997 | 45.315 |
| 21 | 23.858 | 24.935 | 26.171 | 29.615 | 32.671 | 35.479 | 36.343 | 38.932 | 41.401 | 46.797 |
| 22 | 24.939 | 26.039 | 27.301 | 30.813 | 33.924 | 36.781 | 37.659 | 40.289 | 42.796 | 48.268 |
| 23 | 26.018 | 27.141 | 28.429 | 32.007 | 35.172 | 38.076 | 38.968 | 41.638 | 44.181 | 49.728 |
| 24 | 27.096 | 28.241 | 29.553 | 33.196 | 36.415 | 39.364 | 40.270 | 42.980 | 45.558 | 51.179 |
| 25 | 28.172 | 29.339 | 30.675 | 34.382 | 37.652 | 40.646 | 41.566 | 44.314 | 46.928 | 52.620 |
| 26 | 29.246 | 30.434 | 31.795 | 35.563 | 38.885 | 41.932 | 42.856 | 45.642 | 48.290 | 54.052 |
| 27 | 30.319 | 31.528 | 32.912 | 36.741 | 40.113 | 43.194 | 44.140 | 46.963 | 49.645 | 55.476 |
| 28 | 31.391 | 32.620 | 34.027 | 37.916 | 41.337 | 44.461 | 45.419 | 48.278 | 50.993 | 56.893 |
| 29 | 32.461 | 33.711 | 35.139 | 39.087 | 42.557 | 45.722 | 46.693 | 49.588 | 52.336 | 58.302 |
| 30 | 33.530 | 34.800 | 36.250 | 40.256 | 43.773 | 46.979 | 47.962 | 50.892 | 53.672 | 59.703 |

Tabla 4. Valores críticos de la distribución F 0.05(v1, v2)

| V_2 | V_1 | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 161.4 | 199.5 | 215.7 | 224.6 | 230.2 | 234.3 | 236.8 | 238.9 | 240.5 |
| 2 | 18.51 | 19.00 | 19.16 | 19.25 | 19.30 | 19.33 | 19.35 | 19.37 | 19.38 |
| 3 | 10.13 | 9.55 | 9.28 | 9.12 | 9.01 | 8.94 | 8.89 | 8.85 | 8.81 |
| 4 | 7.71 | 6.94 | 6.59 | 6.39 | 6.26 | 6.16 | 6.09 | 6.04 | 6.00 |
| 5 | 6.61 | 5.79 | 5.41 | 5.19 | 5.05 | 4.95 | 4.88 | 4.82 | 4.77 |
| 6 | 5.99 | 5.14 | 4.76 | 4.53 | 4.39 | 4.28 | 4.21 | 4.15 | 4.10 |
| 7 | 5.59 | 4.74 | 4.35 | 4.12 | 3.97 | 3.87 | 3.79 | 3.73 | 3.68 |
| 8 | 5.32 | 4.46 | 4.07 | 3.84 | 3.69 | 3.58 | 3.50 | 3.44 | 3.39 |
| 9 | 5.12 | 4.26 | 3.86 | 3.63 | 3.48 | 3.37 | 3.29 | 3.23 | 3.18 |
| 10 | 4.96 | 4.10 | 3.71 | 3.48 | 3.33 | 3.22 | 3.14 | 3.07 | 3.02 |
| 11 | 4.84 | 3.98 | 3.59 | 3.36 | 3.20 | 3.09 | 3.01 | 2.95 | 2.90 |
| 12 | 4.75 | 3.89 | 3.49 | 3.26 | 3.11 | 3.00 | 2.91 | 2.85 | 2.80 |
| 13 | 4.67 | 3.81 | 3.41 | 3.18 | 3.03 | 2.92 | 2.83 | 2.77 | 2.71 |
| 14 | 4.60 | 3.71 | 3.34 | 3.11 | 2.96 | 2.85 | 2.76 | 2.70 | 2.65 |
| 15 | 4.54 | 3.68 | 3.29 | 3.06 | 2.90 | 2.79 | 2.71 | 2.64 | 2.59 |
| 16 | 4.49 | 3.63 | 3.24 | 3.01 | 2.85 | 2.74 | 2.66 | 2.59 | 2.54 |
| 17 | 4.45 | 3.59 | 3.20 | 2.96 | 2.81 | 2.70 | 2.61 | 2.55 | 2.49 |
| 18 | 4.41 | 3.55 | 3.16 | 2.93 | 2.77 | 2.66 | 2.58 | 2.51 | 2.46 |
| 19 | 4.38 | 3.52 | 3.13 | 2.90 | 2.74 | 2.63 | 2.54 | 2.48 | 2.42 |
| 20 | 4.35 | 3.49 | 3.10 | 2.87 | 2.71 | 2.60 | 2.51 | 2.45 | 2.39 |
| 21 | 4.32 | 3.47 | 3.07 | 2.84 | 2.68 | 2.57 | 2.49 | 2.42 | 2.37 |
| 22 | 4.30 | 3.44 | 3.05 | 2.82 | 2.66 | 2.55 | 2.46 | 2.40 | 2.34 |
| 23 | 4.28 | 3.42 | 3.03 | 2.8 | 2.64 | 2.53 | 2.44 | 2.37 | 2.32 |
| 24 | 4.26 | 3.40 | 3.01 | 2.78 | 2.62 | 2.51 | 2.42 | 2.36 | 2.30 |
| 25 | 4.24 | 3.39 | 2.99 | 2.76 | 2.60 | 2.49 | 2.40 | 2.34 | 2.28 |
| 26 | 4.23 | 3.37 | 2.98 | 2.74 | 2.59 | 2.47 | 2.39 | 2.32 | 2.27 |
| 27 | 4.21 | 3.35 | 2.96 | 2.73 | 2.57 | 2.46 | 2.37 | 2.31 | 2.25 |
| 28 | 4.20 | 3.34 | 2.95 | 2.71 | 2.56 | 2.45 | 2.36 | 2.29 | 2.24 |
| 29 | 4.18 | 3.33 | 2.93 | 2.70 | 2.55 | 2.43 | 2.35 | 2.28 | 2.22 |
| 30 | 4.17 | 3.32 | 2.92 | 2.69 | 2.53 | 2.42 | 2.33 | 2.27 | 2.21 |
| 40 | 4.08 | 3.23 | 2.84 | 2.61 | 2.45 | 2.34 | 2.25 | 2.18 | 2.12 |
| 60 | 4.00 | 3.15 | 2.76 | 2.53 | 2.37 | 2.25 | 2.17 | 2.10 | 2.04 |
| 120 | 3.92 | 3.07 | 2.68 | 2.45 | 2.29 | 2.17 | 2.09 | 2.02 | 1.96 |
| α | 3.84 | 3.00 | 2.60 | 2.37 | 2.21 | 2.10 | 2.01 | 1.94 | 1.88 |

*Reproducida de la tabla 18 de Biométrica Tables for Statisticians, Vol1, con permiso de E.S. Pearson y de los fiduciarios de Biometrika

**Tabla 4. (Continuación) Valores críticos de la distribución F
F 0.05(v1, v2)**

| V ₂ | V ₁ | | | | | | | | | |
|----------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 10 | 12 | 15 | 20 | 24 | 30 | 40 | 60 | 120 | α |
| 1 | 241.9 | 243.9 | 245.9 | 248.0 | 249.1 | 250.1 | 251.1 | 252.2 | 253.3 | 254.3 |
| 2 | 19.40 | 19.41 | 19.43 | 19.45 | 19.45 | 19.46 | 19.47 | 19.48 | 19.49 | 19.50 |
| 3 | 8.79 | 8.74 | 8.70 | 8.66 | 8.64 | 8.62 | 8.59 | 8.57 | 8.55 | 8.53 |
| 4 | 5.96 | 5.91 | 5.86 | 5.80 | 5.77 | 5.75 | 5.72 | 5.69 | 5.66 | 5.63 |
| | | | | | | | | | | |
| 5 | 4.74 | 4.68 | 4.62 | 4.56 | 4.53 | 4.50 | 4.46 | 4.43 | 4.40 | 4.36 |
| 6 | 4.06 | 4.00 | 3.94 | 3.87 | 3.84 | 3.81 | 3.77 | 3.74 | 3.70 | 3.67 |
| 7 | 3.64 | 3.57 | 3.51 | 3.44 | 3.41 | 3.38 | 3.34 | 3.30 | 3.27 | 3.23 |
| 8 | 3.35 | 3.28 | 3.22 | 3.15 | 3.12 | 3.08 | 3.04 | 3.01 | 2.97 | 2.93 |
| 9 | 3.14 | 3.07 | 3.01 | 2.94 | 2.90 | 2.86 | 2.83 | 2.79 | 2.76 | 2.74 |
| | | | | | | | | | | |
| 10 | 2.98 | 2.91 | 2.85 | 2.77 | 2.74 | 2.70 | 2.66 | 2.62 | 2.58 | 2.54 |
| 11 | 2.85 | 2.79 | 2.72 | 2.65 | 2.61 | 2.57 | 2.53 | 2.49 | 2.45 | 2.40 |
| 12 | 2.75 | 2.69 | 2.62 | 2.54 | 2.51 | 2.47 | 2.43 | 2.38 | 2.34 | 2.30 |
| 13 | 2.67 | 2.60 | 2.53 | 2.46 | 2.42 | 2.38 | 2.34 | 2.30 | 2.25 | 2.21 |
| 14 | 2.60 | 2.53 | 2.46 | 2.39 | 2.35 | 2.31 | 2.27 | 2.22 | 2.18 | 2.13 |
| | | | | | | | | | | |
| 15 | 2.54 | 2.48 | 2.40 | 2.33 | 2.29 | 2.25 | 2.20 | 2.16 | 2.11 | 2.07 |
| 16 | 2.49 | 2.42 | 2.35 | 2.28 | 2.24 | 2.19 | 2.15 | 2.11 | 2.06 | 2.01 |
| 17 | 2.45 | 2.38 | 2.31 | 2.23 | 2.19 | 2.15 | 2.10 | 2.06 | 2.01 | 1.96 |
| 18 | 2.41 | 2.34 | 2.27 | 2.19 | 2.15 | 2.11 | 2.06 | 2.02 | 1.97 | 1.92 |
| 19 | 2.38 | 2.31 | 2.23 | 2.16 | 2.11 | 2.07 | 2.03 | 1.98 | 1.93 | 1.88 |
| | | | | | | | | | | |
| 20 | 2.35 | 2.28 | 2.20 | 2.12 | 2.08 | 2.04 | 1.99 | 1.95 | 1.90 | 1.84 |
| 21 | 2.32 | 2.25 | 2.18 | 2.10 | 2.05 | 2.01 | 1.96 | 1.92 | 1.87 | 1.81 |
| 22 | 2.30 | 2.23 | 2.15 | 2.07 | 2.03 | 1.98 | 1.94 | 1.89 | 1.84 | 1.78 |
| 23 | 2.27 | 2.20 | 2.13 | 2.05 | 2.01 | 1.96 | 1.91 | 1.86 | 1.81 | 1.76 |
| 24 | 2.25 | 2.18 | 2.11 | 2.03 | 1.98 | 1.94 | 1.89 | 1.84 | 1.79 | 1.73 |
| | | | | | | | | | | |
| 25 | 2.24 | 2.16 | 2.09 | 2.01 | 1.96 | 1.92 | 1.87 | 1.82 | 1.77 | 1.71 |
| 26 | 2.22 | 2.15 | 2.07 | 1.99 | 1.95 | 1.90 | 1.85 | 1.80 | 1.75 | 1.69 |
| 27 | 2.20 | 2.13 | 2.06 | 1.97 | 1.93 | 1.88 | 1.84 | 1.79 | 1.73 | 1.67 |
| 28 | 2.19 | 2.12 | 2.04 | 1.96 | 1.91 | 1.87 | 1.82 | 1.77 | 1.71 | 1.65 |
| 29 | 2.18 | 2.10 | 2.03 | 1.94 | 1.90 | 1.85 | 1.81 | 1.75 | 1.70 | 1.64 |
| | | | | | | | | | | |
| 30 | 2.16 | 2.09 | 2.01 | 1.93 | 1.89 | 1.84 | 1.79 | 1.74 | 1.68 | 1.62 |
| 40 | 2.08 | 2.00 | 1.92 | 1.84 | 1.79 | 1.74 | 1.69 | 1.64 | 1.58 | 1.51 |
| 60 | 1.99 | 1.95 | 1.84 | 1.75 | 1.70 | 1.65 | 1.59 | 1.53 | 1.47 | 1.39 |
| 120 | 1.91 | 1.83 | 1.75 | 1.66 | 1.61 | 1.55 | 1.50 | 1.43 | 1.35 | 1.25 |
| α | 1.83 | 1.75 | 1.67 | 1.57 | 1.52 | 1.46 | 1.39 | 1.32 | 1.22 | 1.00 |

Tabla 5. Valores críticos de la distribución F 0.01(v_1, v_2)

| V_2 | V_1 | | | | | | | | |
|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 4052 | 4999.5 | 5403 | 5625 | 5764 | 5859 | 5928 | 5981 | 6022 |
| 2 | 98.50 | 99.00 | 99.17 | 99.25 | 99.30 | 99.33 | 99.36 | 99.37 | 99.39 |
| 3 | 34.12 | 30.82 | 29.46 | 28.71 | 28.24 | 27.91 | 27.67 | 27.49 | 27.35 |
| 4 | 21.20 | 18.00 | 16.69 | 15.98 | 15.52 | 15.21 | 14.98 | 14.80 | 14.66 |
| | | | | | | | | | |
| 5 | 16.26 | 13.27 | 12.06 | 11.39 | 10.97 | 10.67 | 10.46 | 10.29 | 10.16 |
| 6 | 13.75 | 10.92 | 9.78 | 9.15 | 8.75 | 8.47 | 8.26 | 8.10 | 7.98 |
| 7 | 12.25 | 9.55 | 8.45 | 7.85 | 7.46 | 7.19 | 6.99 | 6.84 | 6.72 |
| 8 | 11.26 | 8.65 | 7.59 | 7.01 | 6.63 | 6.37 | 6.18 | 6.03 | 5.91 |
| 9 | 10.56 | 8.02 | 6.99 | 6.42 | 6.06 | 5.80 | 5.61 | 5.47 | 5.35 |
| | | | | | | | | | |
| 10 | 10.04 | 7.56 | 6.55 | 5.99 | 5.64 | 5.39 | 5.20 | 5.06 | 4.94 |
| 11 | 9.65 | 7.21 | 6.22 | 5.67 | 5.32 | 5.07 | 4.89 | 4.74 | 4.63 |
| 12 | 9.33 | 6.93 | 5.95 | 5.41 | 5.06 | 4.82 | 4.64 | 4.50 | 4.39 |
| 13 | 9.07 | 6.70 | 5.74 | 5.21 | 4.86 | 4.62 | 4.44 | 4.30 | 4.19 |
| 14 | 8.86 | 6.51 | 5.56 | 5.04 | 4.69 | 4.46 | 4.28 | 4.14 | 4.03 |
| | | | | | | | | | |
| 15 | 8.68 | 6.36 | 5.42 | 4.89 | 4.56 | 4.32 | 4.14 | 4.00 | 3.89 |
| 16 | 8.53 | 6.23 | 5.29 | 4.77 | 4.44 | 4.20 | 4.03 | 3.89 | 3.78 |
| 17 | 8.40 | 6.11 | 5.18 | 4.67 | 4.34 | 4.10 | 3.93 | 3.79 | 3.68 |
| 18 | 8.29 | 6.01 | 5.09 | 4.58 | 4.25 | 4.01 | 3.84 | 3.71 | 3.60 |
| 19 | 8.18 | 5.93 | 5.01 | 4.50 | 4.17 | 3.94 | 3.77 | 3.63 | 3.52 |
| | | | | | | | | | |
| 20 | 8.10 | 5.85 | 4.94 | 4.43 | 4.10 | 3.87 | 3.70 | 3.56 | 3.46 |
| 21 | 8.02 | 5.78 | 4.87 | 4.37 | 4.04 | 3.81 | 3.64 | 3.51 | 3.40 |
| 22 | 7.95 | 5.72 | 4.82 | 4.31 | 3.99 | 3.76 | 3.59 | 3.45 | 3.35 |
| 23 | 7.88 | 5.66 | 4.76 | 4.26 | 3.94 | 3.71 | 3.54 | 3.41 | 3.30 |
| 24 | 7.82 | 5.61 | 4.72 | 4.22 | 3.90 | 3.67 | 3.50 | 3.36 | 3.26 |
| | | | | | | | | | |
| 25 | 7.77 | 5.57 | 4.68 | 4.18 | 3.85 | 3.63 | 3.46 | 3.32 | 3.22 |
| 26 | 7.72 | 5.53 | 4.64 | 4.14 | 3.82 | 3.59 | 3.42 | 3.29 | 3.18 |
| 27 | 7.68 | 5.49 | 4.60 | 4.11 | 3.78 | 3.56 | 3.39 | 3.26 | 3.15 |
| 28 | 7.64 | 5.45 | 4.57 | 4.07 | 3.75 | 3.53 | 3.36 | 3.23 | 3.12 |
| 29 | 7.60 | 5.42 | 4.54 | 4.04 | 3.73 | 3.50 | 3.33 | 3.20 | 3.09 |
| | | | | | | | | | |
| 30 | 7.56 | 5.39 | 4.51 | 4.02 | 3.70 | 3.47 | 3.30 | 3.17 | 3.07 |
| 40 | 7.31 | 5.18 | 4.31 | 3.83 | 3.51 | 3.29 | 3.12 | 2.99 | 2.89 |
| 60 | 7.08 | 4.98 | 4.13 | 3.65 | 3.34 | 3.12 | 2.95 | 2.82 | 2.72 |
| 120 | 6.85 | 4.79 | 3.95 | 3.48 | 3.17 | 2.96 | 2.79 | 2.66 | 2.56 |
| x | 6.63 | 4.61 | 3.78 | 3.32 | 3.02 | 2.80 | 2.64 | 2.51 | 2.41 |

**Tabla 5. (Continuación) Valores críticos de la distribución F
 $F_{0.01}(v_1, v_2)$**

| V_2 | V_1 | | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 10 | 12 | 15 | 20 | 24 | 30 | 40 | 60 | 120 | α |
| 1 | 6056 | 6106 | 6157 | 6209 | 6235 | 6261 | 6287 | 6313 | 6339 | 6366 |
| 2 | 99.40 | 99.42 | 99.43 | 99.45 | 99.46 | 99.47 | 99.47 | 99.48 | 99.49 | 99.50 |
| 3 | 27.23 | 27.05 | 26.87 | 26.69 | 26.60 | 26.50 | 26.41 | 26.32 | 26.22 | 26.13 |
| 4 | 14.55 | 14.37 | 14.20 | 14.02 | 13.93 | 13.84 | 13.75 | 13.65 | 13.56 | 13.46 |
| 5 | 10.05 | 9.89 | 9.72 | 9.55 | 9.47 | 9.38 | 9.29 | 9.20 | 9.11 | 9.02 |
| 6 | 7.87 | 7.72 | 7.56 | 7.40 | 7.31 | 7.23 | 7.14 | 7.06 | 6.97 | 6.88 |
| 7 | 6.62 | 6.47 | 6.31 | 6.16 | 6.07 | 5.99 | 5.91 | 5.82 | 5.74 | 5.65 |
| 8 | 5.81 | 5.67 | 5.52 | 5.36 | 5.28 | 5.20 | 5.12 | 5.03 | 4.95 | 4.86 |
| 9 | 5.26 | 5.11 | 4.96 | 4.81 | 4.73 | 4.65 | 4.57 | 4.48 | 4.40 | 4.31 |
| 10 | 4.85 | 4.71 | 4.56 | 4.41 | 4.33 | 4.25 | 4.17 | 4.08 | 4.00 | 3.91 |
| 11 | 4.54 | 4.40 | 4.25 | 4.10 | 4.02 | 3.94 | 3.86 | 3.78 | 3.69 | 3.60 |
| 12 | 4.30 | 4.16 | 4.01 | 3.86 | 3.78 | 3.70 | 3.62 | 3.54 | 3.45 | 3.36 |
| 13 | 4.10 | 3.96 | 3.82 | 3.66 | 3.59 | 3.51 | 3.43 | 3.34 | 3.25 | 3.17 |
| 14 | 3.94 | 3.80 | 3.66 | 3.51 | 3.43 | 3.35 | 3.27 | 3.18 | 3.09 | 3.00 |
| 15 | 3.80 | 3.67 | 3.52 | 3.37 | 3.29 | 3.21 | 3.13 | 3.05 | 2.96 | 2.87 |
| 16 | 3.69 | 3.55 | 3.41 | 3.26 | 3.18 | 3.10 | 3.02 | 2.93 | 2.84 | 2.75 |
| 17 | 3.59 | 3.46 | 3.31 | 3.16 | 3.08 | 3.00 | 2.92 | 2.83 | 2.75 | 2.65 |
| 18 | 3.51 | 3.37 | 3.23 | 3.08 | 3.00 | 2.92 | 2.84 | 2.75 | 2.66 | 2.57 |
| 19 | 3.43 | 3.30 | 3.15 | 3.00 | 2.92 | 2.84 | 2.76 | 2.67 | 2.58 | 2.49 |
| 20 | 3.37 | 3.23 | 3.09 | 2.94 | 2.86 | 2.78 | 2.69 | 2.61 | 2.52 | 2.43 |
| 21 | 3.31 | 3.17 | 3.03 | 2.88 | 2.80 | 2.72 | 2.64 | 2.55 | 2.46 | 2.37 |
| 22 | 3.26 | 3.12 | 2.98 | 2.83 | 2.75 | 2.67 | 2.58 | 2.50 | 2.40 | 2.31 |
| 23 | 3.21 | 3.07 | 2.93 | 2.78 | 2.70 | 2.62 | 2.54 | 2.45 | 2.35 | 2.26 |
| 24 | 3.17 | 3.03 | 2.89 | 2.74 | 2.66 | 2.58 | 2.49 | 2.40 | 2.31 | 2.22 |
| 25 | 3.13 | 2.99 | 2.85 | 2.70 | 2.62 | 2.54 | 2.45 | 2.36 | 2.27 | 2.18 |
| 26 | 3.09 | 2.96 | 2.81 | 2.66 | 2.58 | 2.50 | 2.42 | 2.33 | 2.23 | 2.14 |
| 27 | 3.06 | 2.93 | 2.78 | 2.63 | 2.55 | 2.47 | 2.38 | 2.29 | 2.20 | 2.11 |
| 28 | 3.03 | 2.90 | 2.75 | 2.60 | 2.52 | 2.44 | 2.35 | 2.26 | 2.17 | 2.08 |
| 29 | 3.00 | 2.87 | 2.73 | 2.57 | 2.49 | 2.41 | 2.33 | 2.23 | 2.14 | 2.05 |
| 30 | 2.98 | 2.84 | 2.70 | 2.55 | 2.47 | 2.39 | 2.30 | 2.21 | 2.11 | 2.01 |
| 40 | 2.80 | 2.66 | 2.52 | 2.37 | 2.29 | 2.20 | 2.11 | 2.02 | 1.92 | 1.80 |
| 60 | 2.63 | 2.50 | 2.35 | 2.20 | 2.12 | 2.03 | 1.94 | 1.84 | 1.73 | 1.60 |
| 120 | 2.47 | 2.34 | 2.19 | 2.03 | 1.95 | 1.86 | 1.76 | 1.66 | 1.53 | 1.38 |
| α | 2.32 | 2.18 | 2.04 | 1.88 | 1.79 | 1.70 | 1.59 | 1.47 | 1.32 | 1.00 |

Tabla 6. Valores críticos de D en la prueba de Bondad de ajuste de Kolmogorov-Smirnov²

| Tamaño de la muestra (n) | Nivel de significancia para $D = \text{máximo } F(x) - S_n(x) $ | | | | |
|------------------------------|--|-------------------------|-------------------------|-------------------------|-------------------------|
| | .20 | .15 | .10 | .05 | .01 |
| 1 | .900 | .925 | .950 | .975 | .995 |
| 2 | .684 | .726 | .776 | .842 | .929 |
| 3 | .565 | .597 | .642 | .708 | .828 |
| 4 | .494 | .525 | .564 | .624 | .733 |
| 5 | .446 | .474 | .510 | .565 | .669 |
| 6 | .410 | .436 | .470 | .521 | .618 |
| 7 | .381 | .405 | .438 | .486 | .577 |
| 8 | .358 | .381 | .411 | .457 | .543 |
| 9 | .339 | .360 | .388 | .432 | .514 |
| 10 | .322 | .342 | .368 | .410 | .490 |
| 11 | .307 | .326 | .352 | .391 | .468 |
| 12 | .295 | .313 | .338 | .375 | .450 |
| 13 | .284 | .302 | .325 | .361 | .433 |
| 14 | .274 | .292 | .314 | .349 | .418 |
| 15 | .266 | .283 | .304 | .338 | .404 |
| 16 | .258 | .274 | .295 | .328 | .392 |
| 17 | .250 | .266 | .286 | .318 | .381 |
| 18 | .244 | .259 | .278 | .309 | .371 |
| 19 | .237 | .252 | .272 | .301 | .363 |
| 20 | .231 | .246 | .264 | .294 | .356 |
| 25 | .21 | .22 | .24 | .27 | .32 |
| 30 | .19 | .20 | .22 | .24 | .29 |
| 35 | .18 | .19 | .21 | .23 | .27 |
| Más de 35 | $\frac{1.07}{\sqrt{n}}$ | $\frac{1.14}{\sqrt{n}}$ | $\frac{1.22}{\sqrt{n}}$ | $\frac{1.36}{\sqrt{n}}$ | $\frac{1.63}{\sqrt{n}}$ |

¹ Adaptado de F. J. Massey, Jr., "The Kolmogorov-Smirnov test for goodness of fit", Jour, Amer. Stat. Assn, Vol. 46,1951,pp.68-78. Con permiso del autor y los editors.

² Los valores D proporcionados en la tabla son valores críticos asociados con valores seleccionados de n . Cualquier valor D el cual es mayor o igual que el valor tabulado es significativo en el nivel de significancia indicado.

TABLA 7. Distribución de Poisson acumulada

| LANDA | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|----|----|----|----|----|----|----|----|----|
| 0.05 | 0.950 | 0.999 | | | | | | | | | | | | | | | | | | |
| 0.10 | 0.905 | 0.995 | 0.999 | | | | | | | | | | | | | | | | | |
| 0.15 | 0.861 | 0.990 | 0.999 | | | | | | | | | | | | | | | | | |
| 0.20 | 0.819 | 0.982 | 0.999 | | | | | | | | | | | | | | | | | |
| 0.25 | 0.779 | 0.973 | 0.998 | 0.999 | | | | | | | | | | | | | | | | |
| 0.30 | 0.741 | 0.963 | 0.996 | 0.999 | | | | | | | | | | | | | | | | |
| 0.35 | 0.705 | 0.951 | 0.994 | 0.999 | | | | | | | | | | | | | | | | |
| 0.40 | 0.670 | 0.938 | 0.992 | 0.999 | | | | | | | | | | | | | | | | |
| 0.45 | 0.638 | 0.924 | 0.989 | 0.998 | 0.999 | | | | | | | | | | | | | | | |
| 0.50 | 0.607 | 0.910 | 0.986 | 0.998 | 0.999 | | | | | | | | | | | | | | | |
| 0.55 | 0.577 | 0.894 | 0.981 | 0.997 | 0.999 | | | | | | | | | | | | | | | |
| 0.60 | 0.549 | 0.878 | 0.977 | 0.997 | 0.999 | | | | | | | | | | | | | | | |
| 0.65 | 0.522 | 0.861 | 0.972 | 0.996 | 0.999 | | | | | | | | | | | | | | | |
| 0.70 | 0.497 | 0.844 | 0.966 | 0.994 | 0.999 | | | | | | | | | | | | | | | |
| 0.75 | 0.472 | 0.827 | 0.959 | 0.993 | 0.999 | | | | | | | | | | | | | | | |
| 0.80 | 0.449 | 0.809 | 0.953 | 0.991 | 0.998 | 0.999 | | | | | | | | | | | | | | |
| 0.85 | 0.427 | 0.791 | 0.945 | 0.989 | 0.998 | 0.999 | | | | | | | | | | | | | | |
| 0.90 | 0.407 | 0.772 | 0.937 | 0.987 | 0.998 | 0.999 | | | | | | | | | | | | | | |
| 0.95 | 0.387 | 0.754 | 0.929 | 0.984 | 0.997 | 0.999 | | | | | | | | | | | | | | |
| 1.00 | 0.368 | 0.736 | 0.920 | 0.981 | 0.996 | 0.999 | | | | | | | | | | | | | | |
| 1.05 | 0.350 | 0.717 | 0.910 | 0.978 | 0.995 | 0.999 | | | | | | | | | | | | | | |
| 1.10 | 0.333 | 0.699 | 0.900 | 0.974 | 0.995 | 0.999 | | | | | | | | | | | | | | |
| 1.15 | 0.317 | 0.681 | 0.890 | 0.970 | 0.993 | 0.999 | | | | | | | | | | | | | | |
| 1.20 | 0.301 | 0.663 | 0.879 | 0.966 | 0.992 | 0.998 | 0.999 | | | | | | | | | | | | | |
| 1.25 | 0.286 | 0.645 | 0.868 | 0.962 | 0.991 | 0.998 | 0.999 | | | | | | | | | | | | | |
| 1.30 | 0.273 | 0.627 | 0.857 | 0.957 | 0.989 | 0.998 | 0.999 | | | | | | | | | | | | | |
| 1.35 | 0.259 | 0.609 | 0.845 | 0.952 | 0.988 | 0.997 | 0.999 | | | | | | | | | | | | | |
| 1.40 | 0.247 | 0.592 | 0.833 | 0.946 | 0.986 | 0.997 | 0.999 | | | | | | | | | | | | | |
| 1.45 | 0.235 | 0.575 | 0.821 | 0.940 | 0.984 | 0.996 | 0.999 | | | | | | | | | | | | | |
| 1.50 | 0.223 | 0.558 | 0.809 | 0.934 | 0.981 | 0.995 | 0.999 | | | | | | | | | | | | | |
| 1.55 | 0.212 | 0.541 | 0.796 | 0.928 | 0.979 | 0.995 | 0.999 | | | | | | | | | | | | | |
| 1.60 | 0.202 | 0.525 | 0.783 | 0.921 | 0.976 | 0.994 | 0.999 | | | | | | | | | | | | | |
| 1.65 | 0.192 | 0.509 | 0.770 | 0.914 | 0.973 | 0.993 | 0.998 | 0.999 | | | | | | | | | | | | |
| 1.70 | 0.183 | 0.493 | 0.757 | 0.907 | 0.970 | 0.992 | 0.998 | 0.999 | | | | | | | | | | | | |
| 1.75 | 0.174 | 0.478 | 0.744 | 0.899 | 0.967 | 0.991 | 0.998 | 0.999 | | | | | | | | | | | | |
| 1.80 | 0.165 | 0.462 | 0.731 | 0.891 | 0.963 | 0.990 | 0.997 | 0.999 | | | | | | | | | | | | |
| 1.85 | 0.157 | 0.448 | 0.717 | 0.883 | 0.960 | 0.988 | 0.997 | 0.999 | | | | | | | | | | | | |
| 1.90 | 0.150 | 0.434 | 0.704 | 0.875 | 0.956 | 0.987 | 0.997 | 0.999 | | | | | | | | | | | | |
| 1.95 | 0.142 | 0.420 | 0.690 | 0.866 | 0.952 | 0.985 | 0.996 | 0.999 | | | | | | | | | | | | |
| 2.00 | 0.135 | 0.406 | 0.677 | 0.857 | 0.947 | 0.983 | 0.995 | 0.999 | | | | | | | | | | | | |
| 2.05 | 0.129 | 0.393 | 0.663 | 0.848 | 0.943 | 0.982 | 0.995 | 0.999 | | | | | | | | | | | | |
| 2.10 | 0.122 | 0.380 | 0.650 | 0.839 | 0.938 | 0.980 | 0.994 | 0.999 | | | | | | | | | | | | |
| 2.15 | 0.116 | 0.367 | 0.636 | 0.829 | 0.933 | 0.977 | 0.993 | 0.998 | 0.999 | | | | | | | | | | | |
| 2.20 | 0.111 | 0.355 | 0.623 | 0.819 | 0.928 | 0.975 | 0.992 | 0.998 | 0.999 | | | | | | | | | | | |
| 2.25 | 0.105 | 0.342 | 0.609 | 0.809 | 0.922 | 0.973 | 0.992 | 0.998 | 0.999 | | | | | | | | | | | |
| 2.30 | 0.100 | 0.331 | 0.596 | 0.799 | 0.916 | 0.970 | 0.991 | 0.997 | 0.999 | | | | | | | | | | | |
| 2.35 | 0.095 | 0.319 | 0.583 | 0.789 | 0.910 | 0.967 | 0.990 | 0.997 | 0.999 | | | | | | | | | | | |
| 2.40 | 0.091 | 0.308 | 0.570 | 0.779 | 0.904 | 0.964 | 0.988 | 0.997 | 0.999 | | | | | | | | | | | |
| 2.45 | 0.086 | 0.286 | 0.557 | 0.768 | 0.898 | 0.961 | 0.987 | 0.996 | 0.999 | | | | | | | | | | | |
| 2.50 | 0.082 | 0.287 | 0.544 | 0.758 | 0.891 | 0.958 | 0.986 | 0.996 | 0.999 | | | | | | | | | | | |
| 2.55 | 0.078 | 0.277 | 0.531 | 0.747 | 0.884 | 0.954 | 0.984 | 0.995 | 0.999 | | | | | | | | | | | |
| 2.60 | 0.074 | 0.267 | 0.518 | 0.736 | 0.877 | 0.951 | 0.983 | 0.995 | 0.999 | | | | | | | | | | | |
| 2.65 | 0.071 | 0.258 | 0.506 | 0.725 | 0.870 | 0.947 | 0.981 | 0.994 | 0.998 | 0.999 | | | | | | | | | | |
| 2.70 | 0.067 | 0.249 | 0.494 | 0.714 | 0.863 | 0.943 | 0.979 | 0.993 | 0.998 | 0.999 | | | | | | | | | | |
| 2.75 | 0.064 | 0.240 | 0.481 | 0.703 | 0.855 | 0.939 | 0.978 | 0.993 | 0.998 | 0.999 | | | | | | | | | | |
| 2.80 | 0.061 | 0.231 | 0.469 | 0.692 | 0.848 | 0.935 | 0.976 | 0.992 | 0.998 | 0.999 | | | | | | | | | | |

| LANDA | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|----|----|----|----|
| 2.85 | 0.058 | 0.223 | 0.458 | 0.681 | 0.840 | 0.930 | 0.973 | 0.991 | 0.997 | 0.999 | | | | | | | | | | |
| 2.90 | 0.055 | 0.215 | 0.446 | 0.670 | 0.832 | 0.826 | 0.971 | 0.999 | 0.997 | 0.999 | | | | | | | | | | |
| 2.95 | 0.052 | 0.207 | 0.434 | 0.658 | 0.824 | 0.921 | 0.969 | 0.989 | 0.997 | 0.999 | | | | | | | | | | |
| 3.00 | 0.050 | 0.199 | 0.423 | 0.647 | 0.815 | 0.916 | 0.966 | 0.988 | 0.996 | 0.999 | | | | | | | | | | |
| 3.05 | 0.047 | 0.192 | 0.415 | 0.636 | 0.807 | 0.911 | 0.964 | 0.987 | 0.996 | 0.999 | | | | | | | | | | |
| 3.10 | 0.045 | 0.185 | 0.401 | 0.625 | 0.798 | 0.906 | 0.961 | 0.988 | 0.995 | 0.999 | | | | | | | | | | |
| 3.15 | 0.043 | 0.178 | 0.390 | 0.614 | 0.789 | 0.900 | 0.958 | 0.984 | 0.995 | 0.998 | 0.999 | | | | | | | | | |
| 3.20 | 0.041 | 0.171 | 0.380 | 0.603 | 0.781 | 0.895 | 0.955 | 0.983 | 0.994 | 0.998 | 0.999 | | | | | | | | | |
| 3.25 | 0.039 | 0.165 | 0.370 | 0.591 | 0.772 | 0.889 | 0.952 | 0.982 | 0.994 | 0.998 | 0.999 | | | | | | | | | |
| 3.30 | 0.037 | 0.159 | 0.359 | 0.580 | 0.763 | 0.883 | 0.949 | 0.980 | 0.993 | 0.998 | 0.999 | | | | | | | | | |
| 3.35 | 0.035 | 0.153 | 0.349 | 0.569 | 0.753 | 0.877 | 0.946 | 0.979 | 0.992 | 0.998 | 0.999 | | | | | | | | | |
| 3.40 | 0.033 | 0.147 | 0.340 | 0.559 | 0.744 | 0.871 | 0.942 | 0.977 | 0.992 | 0.997 | 0.999 | | | | | | | | | |
| 3.45 | 0.032 | 0.141 | 0.330 | 0.547 | 0.735 | 0.864 | 0.934 | 0.975 | 0.991 | 0.997 | 0.999 | | | | | | | | | |
| 3.50 | 0.030 | 0.136 | 0.321 | 0.537 | 0.725 | 0.858 | 0.935 | 0.973 | 0.990 | 0.997 | 0.999 | | | | | | | | | |
| 3.55 | 0.029 | 0.131 | 0.312 | 0.526 | 0.716 | 0.851 | 0.931 | 0.971 | 0.989 | 0.996 | 0.999 | | | | | | | | | |
| 3.60 | 0.027 | 0.126 | 0.303 | 0.515 | 0.706 | 0.844 | 0.927 | 0.969 | 0.988 | 0.996 | 0.999 | | | | | | | | | |
| 3.65 | 0.026 | 0.121 | 0.294 | 0.505 | 0.697 | 0.837 | 0.922 | 0.967 | 0.987 | 0.996 | 0.999 | | | | | | | | | |
| 3.70 | 0.025 | 0.116 | 0.285 | 0.494 | 0.687 | 0.830 | 0.918 | 0.965 | 0.988 | 0.995 | 0.988 | 0.999 | | | | | | | | |
| 3.75 | 0.024 | 0.112 | 0.277 | 0.484 | 0.677 | 0.823 | 0.914 | 0.962 | 0.985 | 0.995 | 0.998 | 0.999 | | | | | | | | |
| 3.80 | 0.022 | 0.107 | 0.267 | 0.473 | 0.668 | 0.816 | 0.909 | 0.960 | 0.983 | 0.994 | 0.998 | 0.999 | | | | | | | | |
| 3.85 | 0.021 | 0.103 | 0.261 | 0.463 | 0.658 | 0.808 | 0.904 | 0.957 | 0.983 | 0.994 | 0.998 | 0.999 | | | | | | | | |
| 3.90 | 0.020 | 0.099 | 0.253 | 0.453 | 0.648 | 0.800 | 0.899 | 0.955 | 0.981 | 0.993 | 0.998 | 0.999 | | | | | | | | |
| 3.95 | 0.019 | 0.095 | 0.246 | 0.443 | 0.639 | 0.793 | 0.894 | 0.952 | 0.980 | 0.993 | 0.997 | 0.999 | | | | | | | | |
| 4.00 | 0.018 | 0.092 | 0.238 | 0.433 | 0.629 | 0.785 | 0.889 | 0.949 | 0.979 | 0.992 | 0.997 | 0.999 | | | | | | | | |
| 4.05 | 0.017 | 0.088 | 0.231 | 0.424 | 0.619 | 0.777 | 0.884 | 0.946 | 0.977 | 0.991 | 0.997 | 0.999 | | | | | | | | |
| 4.10 | 0.017 | 0.084 | 0.224 | 0.414 | 0.609 | 0.769 | 0.879 | 0.943 | 0.975 | 0.990 | 0.997 | 0.999 | | | | | | | | |
| 4.15 | 0.015 | 0.081 | 0.217 | 0.405 | 0.600 | 0.761 | 0.873 | 0.939 | 0.974 | 0.990 | 0.996 | 0.999 | | | | | | | | |
| 4.20 | 0.015 | 0.080 | 0.210 | 0.395 | 0.590 | 0.753 | 0.867 | 0.936 | 0.972 | 0.989 | 0.996 | 0.999 | | | | | | | | |
| 4.25 | 0.014 | 0.075 | 0.204 | 0.386 | 0.580 | 0.745 | 0.862 | 0.933 | 0.970 | 0.988 | 0.996 | 0.998 | 0.999 | | | | | | | |
| 4.30 | 0.014 | 0.072 | 0.197 | 0.377 | 0.570 | 0.737 | 0.856 | 0.929 | 0.968 | 0.987 | 0.995 | 0.998 | 0.999 | | | | | | | |
| 4.35 | 0.013 | 0.069 | 0.191 | 0.368 | 0.561 | 0.728 | 0.850 | 0.925 | 0.966 | 0.986 | 0.995 | 0.998 | 0.999 | | | | | | | |
| 4.40 | 0.012 | 0.066 | 0.185 | 0.359 | 0.551 | 0.720 | 0.844 | 0.921 | 0.964 | 0.985 | 0.994 | 0.998 | 0.999 | | | | | | | |
| 4.45 | 0.012 | 0.064 | 0.179 | 0.351 | 0.542 | 0.711 | 0.837 | 0.917 | 0.962 | 0.984 | 0.994 | 0.998 | 0.999 | | | | | | | |
| 4.50 | 0.011 | 0.061 | 0.174 | 0.342 | 0.532 | 0.703 | 0.831 | 0.913 | 0.960 | 0.983 | 0.993 | 0.998 | 0.999 | | | | | | | |
| 4.55 | 0.011 | 0.059 | 0.168 | 0.335 | 0.523 | 0.694 | 0.825 | 0.909 | 0.957 | 0.982 | 0.993 | 0.997 | 0.999 | | | | | | | |
| 4.60 | 0.010 | 0.056 | 0.163 | 0.326 | 0.513 | 0.686 | 0.818 | 0.905 | 0.955 | 0.980 | 0.992 | 0.997 | 0.999 | | | | | | | |
| 4.65 | 0.010 | 0.054 | 0.157 | 0.318 | 0.504 | 0.677 | 0.811 | 0.901 | 0.952 | 0.979 | 0.992 | 0.997 | 0.999 | | | | | | | |
| 4.70 | 0.010 | 0.052 | 0.152 | 0.310 | 0.495 | 0.668 | 0.805 | 0.896 | 0.950 | 0.978 | 0.991 | 0.997 | 0.999 | | | | | | | |
| 4.75 | 0.009 | 0.050 | 0.147 | 0.302 | 0.485 | 0.660 | 0.798 | 0.891 | 0.947 | 0.976 | 0.990 | 0.996 | 0.999 | | | | | | | |
| 4.80 | 0.008 | 0.050 | 0.143 | 0.294 | 0.476 | 0.651 | 0.791 | 0.887 | 0.944 | 0.975 | 0.990 | 0.996 | 0.999 | | | | | | | |
| 4.85 | 0.008 | 0.050 | 0.138 | 0.287 | 0.467 | 0.642 | 0.784 | 0.882 | 0.941 | 0.973 | 0.989 | 0.996 | 0.998 | 0.999 | | | | | | |
| 4.90 | 0.007 | 0.040 | 0.133 | 0.279 | 0.458 | 0.634 | 0.777 | 0.877 | 0.938 | 0.972 | 0.988 | 0.995 | 0.998 | 0.999 | | | | | | |
| 4.95 | 0.007 | 0.040 | 0.129 | 0.272 | 0.449 | 0.625 | 0.769 | 0.872 | 0.935 | 0.970 | 0.987 | 0.995 | 0.998 | 0.999 | | | | | | |
| 5.00 | 0.007 | 0.040 | 0.125 | 0.265 | 0.440 | 0.616 | 0.762 | 0.867 | 0.932 | 0.968 | 0.986 | 0.995 | 0.998 | 0.999 | | | | | | |
| 5.05 | 0.006 | 0.040 | 0.121 | 0.258 | 0.432 | 0.607 | 0.755 | 0.861 | 0.929 | 0.966 | 0.985 | 0.994 | 0.998 | 0.999 | | | | | | |
| 5.10 | 0.006 | 0.040 | 0.116 | 0.251 | 0.423 | 0.598 | 0.747 | 0.856 | 0.925 | 0.964 | 0.984 | 0.994 | 0.998 | 0.999 | | | | | | |
| 5.15 | 0.000 | 0.040 | 0.113 | 0.245 | 0.415 | 0.590 | 0.740 | 0.850 | 0.922 | 0.962 | 0.983 | 0.993 | 0.997 | 0.999 | | | | | | |
| 5.20 | 0.006 | 0.030 | 0.109 | 0.238 | 0.406 | 0.581 | 0.732 | 0.845 | 0.918 | 0.960 | 0.982 | 0.993 | 0.997 | 0.999 | | | | | | |
| 5.25 | 0.005 | 0.030 | 0.105 | 0.232 | 0.398 | 0.572 | 0.725 | 0.839 | 0.914 | 0.958 | 0.981 | 0.992 | 0.997 | 0.999 | | | | | | |
| 5.30 | 0.005 | 0.030 | 0.102 | 0.225 | 0.390 | 0.563 | 0.717 | 0.833 | 0.911 | 0.956 | 0.980 | 0.992 | 0.997 | 0.999 | | | | | | |
| 5.35 | 0.005 | 0.030 | 0.098 | 0.249 | 0.381 | 0.555 | 0.709 | 0.828 | 0.907 | 0.954 | 0.979 | 0.994 | 0.996 | 0.999 | | | | | | |
| 5.40 | 0.005 | 0.030 | 0.095 | 0.213 | 0.373 | 0.546 | 0.702 | 0.822 | 0.903 | 0.951 | 0.977 | 0.990 | 0.996 | 0.999 | | | | | | |
| 5.45 | 0.004 | 0.028 | 0.091 | 0.207 | 0.365 | 0.538 | 0.694 | 0.816 | 0.899 | 0.949 | 0.976 | 0.990 | 0.996 | 0.999 | | | | | | |
| 5.50 | 0.004 | 0.027 | 0.088 | 0.202 | 0.358 | 0.529 | 0.686 | 0.809 | 0.894 | 0.946 | 0.975 | 0.989 | 0.996 | 0.998 | 0.999 | | | | | |
| 5.55 | 0.004 | 0.026 | 0.086 | 0.200 | 0.350 | 0.520 | 0.678 | 0.803 | 0.890 | 0.944 | 0.973 | 0.988 | 0.995 | 0.998 | 0.999 | | | | | |
| 5.60 | 0.004 | 0.024 | 0.082 | 0.191 | 0.342 | 0.512 | 0.670 | 0.797 | 0.886 | 0.941 | 0.972 | 0.988 | 0.995 | 0.998 | 0.999 | | | | | |
| 5.65 | 0.004 | 0.023 | 0.080 | 0.185 | 0.335 | 0.503 | 0.662 | 0.791 | 0.881 | 0.938 | 0.970 | 0.987 | 0.994 | 0.998 | 0.999 | | | | | |
| 5.70 | 0.003 | 0.022 | 0.080 | 0.180 | 0.327 | 0.495 | 0.654 | 0.784 | 0.877 | 0.935 | 0.969 | 0.986 | 0.994 | 0.998 | 0.999 | | | | | |
| 5.75 | 0.003 | 0.021 | 0.080 | 0.175 | 0.320 | 0.487 | 0.646 | 0.778 | 0.872 | 0.932 | 0.967 | 0.985 | 0.994 | 0.997 | 0.999 | | | | | |
| 5.80 | 0.003 | 0.021 | 0.071 | 0.170 | 0.313 | 0.478 | 0.638 | 0.771 | 0.867 | 0.938 | 0.965 | 0.984 | 0.993 | 0.997 | 0.999 | | | | | |

| LANDA | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5.85 | 0.003 | 0.020 | 0.069 | 0.165 | 0.306 | 0.470 | 0.630 | 0.764 | 0.862 | 0.726 | 0.963 | 0.983 | 0.993 | 0.997 | 0.999 | | | | | |
| 5.90 | 0.003 | 0.019 | 0.067 | 0.160 | 0.299 | 0.462 | 0.622 | 0.758 | 0.857 | 0.923 | 0.961 | 0.982 | 0.992 | 0.997 | 0.999 | | | | | |
| 5.95 | 0.003 | 0.018 | 0.064 | 0.156 | 0.292 | 0.454 | 0.614 | 0.751 | 0.852 | 0.919 | 0.959 | 0.981 | 0.992 | 0.997 | 0.999 | | | | | |
| 6.00 | 0.002 | 0.017 | 0.062 | 0.151 | 0.285 | 0.446 | 0.606 | 0.744 | 0.847 | 0.916 | 0.957 | 0.980 | 0.991 | 0.996 | 0.999 | | | | | |
| 6.05 | 0.002 | 0.017 | 0.060 | 0.147 | 0.278 | 0.438 | 0.598 | 0.737 | 0.842 | 0.913 | 0.955 | 0.979 | 0.991 | 0.996 | 0.999 | | | | | |
| 6.10 | 0.002 | 0.016 | 0.058 | 0.143 | 0.272 | 0.430 | 0.590 | 0.730 | 0.837 | 0.939 | 0.953 | 0.978 | 0.990 | 0.996 | 0.999 | | | | | |
| 6.15 | 0.002 | 0.015 | 0.056 | 0.138 | 0.265 | 0.422 | 0.582 | 0.723 | 0.831 | 0.905 | 0.951 | 0.976 | 0.989 | 0.996 | 0.998 | 0.999 | | | | |
| 6.20 | 0.002 | 0.015 | 0.054 | 0.134 | 0.259 | 0.414 | 0.574 | 0.716 | 0.826 | 0.902 | 0.949 | 0.975 | 0.989 | 0.995 | 0.998 | 0.999 | | | | |
| 6.25 | 0.002 | 0.014 | 0.052 | 0.130 | 0.253 | 0.406 | 0.566 | 0.709 | 0.820 | 0.898 | 0.946 | 0.974 | 0.988 | 0.995 | 0.998 | 0.999 | | | | |
| 6.30 | 0.002 | 0.013 | 0.050 | 0.126 | 0.247 | 0.399 | 0.558 | 0.702 | 0.815 | 0.894 | 0.944 | 0.972 | 0.987 | 0.995 | 0.998 | 0.999 | | | | |
| 6.35 | 0.002 | 0.013 | 0.048 | 0.123 | 0.241 | 0.391 | 0.550 | 0.695 | 0.809 | 0.890 | 0.941 | 0.971 | 0.986 | 0.994 | 0.998 | 0.999 | | | | |
| 6.40 | 0.002 | 0.012 | 0.046 | 0.119 | 0.235 | 0.384 | 0.542 | 0.687 | 0.803 | 0.886 | 0.939 | 0.969 | 0.986 | 0.994 | 0.997 | 0.999 | | | | |
| 6.45 | 0.002 | 0.012 | 0.045 | 0.115 | 0.229 | 0.376 | 0.534 | 0.680 | 0.797 | 0.882 | 0.936 | 0.968 | 0.985 | 0.993 | 0.997 | 0.999 | | | | |
| 6.50 | 0.002 | 0.011 | 0.043 | 0.112 | 0.224 | 0.369 | 0.527 | 0.673 | 0.792 | 0.877 | 0.933 | 0.966 | 0.984 | 0.993 | 0.997 | 0.999 | | | | |
| 6.55 | 0.001 | 0.010 | 0.041 | 0.108 | 0.218 | 0.362 | 0.519 | 0.665 | 0.786 | 0.873 | 0.930 | 0.964 | 0.983 | 0.992 | 0.997 | 0.999 | | | | |
| 6.60 | 0.001 | 0.010 | 0.040 | 0.105 | 0.213 | 0.355 | 0.511 | 0.658 | 0.780 | 0.869 | 0.927 | 0.963 | 0.982 | 0.992 | 0.997 | 0.999 | | | | |
| 6.65 | 0.001 | 0.010 | 0.040 | 0.102 | 0.207 | 0.348 | 0.503 | 0.651 | 0.773 | 0.864 | 0.924 | 0.961 | 0.981 | 0.991 | 0.996 | 0.999 | | | | |
| 6.70 | 0.001 | 0.010 | 0.010 | 0.100 | 0.202 | 0.341 | 0.495 | 0.643 | 0.767 | 0.860 | 0.921 | 0.959 | 0.980 | 0.991 | 0.996 | 0.998 | 0.999 | | | |
| 6.75 | 0.001 | 0.009 | 0.036 | 0.096 | 0.197 | 0.334 | 0.488 | 0.636 | 0.761 | 0.855 | 0.918 | 0.957 | 0.979 | 0.990 | 0.996 | 0.998 | 0.999 | | | |
| 6.80 | 0.001 | 0.009 | 0.034 | 0.093 | 0.192 | 0.327 | 0.480 | 0.628 | 0.755 | 0.850 | 0.915 | 0.955 | 0.978 | 0.990 | 0.996 | 0.998 | 0.999 | | | |
| 6.85 | 0.001 | 0.008 | 0.033 | 0.090 | 0.187 | 0.320 | 0.472 | 0.621 | 0.748 | 0.845 | 0.912 | 0.953 | 0.977 | 0.989 | 0.995 | 0.998 | 0.999 | | | |
| 6.90 | 0.001 | 0.008 | 0.032 | 0.087 | 0.182 | 0.315 | 0.465 | 0.614 | 0.742 | 0.840 | 0.908 | 0.951 | 0.976 | 0.989 | 0.995 | 0.998 | 0.999 | | | |
| 6.95 | 0.001 | 0.008 | 0.030 | 0.085 | 0.178 | 0.307 | 0.457 | 0.606 | 0.736 | 0.836 | 0.905 | 0.949 | 0.974 | 0.988 | 0.995 | 0.998 | 0.999 | | | |
| 7.00 | 0.001 | 0.007 | 0.030 | 0.082 | 0.173 | 0.301 | 0.450 | 0.599 | 0.729 | 0.830 | 0.902 | 0.947 | 0.973 | 0.987 | 0.994 | 0.998 | 0.999 | | | |
| 7.10 | 0.001 | 0.007 | 0.027 | 0.077 | 0.164 | 0.288 | 0.435 | 0.584 | 0.716 | 0.820 | 0.894 | 0.942 | 0.970 | 0.986 | 0.994 | 0.997 | 0.999 | | | |
| 7.20 | 0.001 | 0.006 | 0.025 | 0.072 | 0.156 | 0.276 | 0.420 | 0.569 | 0.703 | 0.810 | 0.887 | 0.937 | 0.967 | 0.984 | 0.993 | 0.997 | 0.999 | | | |
| 7.30 | 0.001 | 0.006 | 0.024 | 0.067 | 0.147 | 0.264 | 0.406 | 0.554 | 0.689 | 0.799 | 0.879 | 0.932 | 0.964 | 0.982 | 0.992 | 0.996 | 0.999 | | | |
| 7.40 | 0.001 | 0.005 | 0.022 | 0.063 | 0.140 | 0.253 | 0.392 | 0.540 | 0.676 | 0.788 | 0.871 | 0.926 | 0.961 | 0.980 | 0.991 | 0.996 | 0.998 | 0.999 | | |
| 7.50 | 0.001 | 0.005 | 0.020 | 0.060 | 0.132 | 0.241 | 0.378 | 0.525 | 0.662 | 0.776 | 0.862 | 0.921 | 0.957 | 0.978 | 0.990 | 0.995 | 0.998 | 0.999 | | |
| 7.60 | 0.001 | 0.004 | 0.019 | 0.055 | 0.125 | 0.231 | 0.365 | 0.510 | 0.648 | 0.765 | 0.854 | 0.915 | 0.954 | 0.976 | 0.989 | 0.995 | 0.998 | 0.999 | | |
| 7.70 | 0.000 | 0.004 | 0.017 | 0.052 | 0.118 | 0.220 | 0.351 | 0.496 | 0.634 | 0.753 | 0.844 | 0.909 | 0.950 | 0.974 | 0.987 | 0.994 | 0.997 | 0.999 | | |
| 7.80 | | 0.004 | 0.016 | 0.048 | 0.112 | 0.210 | 0.338 | 0.481 | 0.620 | 0.471 | 0.835 | 0.902 | 0.945 | 0.971 | 0.986 | 0.993 | 0.997 | 0.999 | | |
| 7.90 | | 0.003 | 0.015 | 0.045 | 0.106 | 0.201 | 0.326 | 0.467 | 0.607 | 0.729 | 0.826 | 0.895 | 0.941 | 0.969 | 0.984 | 0.993 | 0.997 | 0.999 | | |
| 8.00 | | 0.003 | 0.014 | 0.042 | 0.096 | 0.191 | 0.313 | 0.453 | 0.593 | 0.717 | 0.16 | 0.888 | 0.936 | 0.966 | 0.983 | 0.992 | 0.996 | 0.998 | 0.999 | |
| 8.10 | | 0.003 | 0.013 | 0.040 | 0.094 | 0.182 | 0.301 | 0.439 | 0.579 | 0.704 | 0.806 | 0.881 | 0.931 | 0.963 | 0.981 | 0.991 | 0.996 | 0.998 | 0.999 | |
| 8.20 | | 0.003 | 0.012 | 0.037 | 0.089 | 0.174 | 0.290 | 0.425 | 0.565 | 0.692 | 0.796 | 0.873 | 0.925 | 0.960 | 0.979 | 0.990 | 0.995 | 0.998 | 0.999 | |
| 8.30 | | 0.002 | 0.011 | 0.035 | 0.085 | 0.166 | 0.280 | 0.411 | 0.553 | 0.681 | 0.786 | 0.880 | 0.921 | 0.957 | 0.977 | 0.989 | 0.995 | 0.998 | 0.999 | |
| 8.40 | | 0.002 | 0.010 | 0.032 | 0.079 | 0.157 | 0.267 | 0.399 | 0.537 | 0.666 | 0.774 | 0.857 | 0.915 | 0.952 | 0.975 | 0.987 | 0.894 | 0.997 | 0.999 | |
| 8.50 | | 0.002 | 0.009 | 0.030 | 0.074 | 0.150 | 0.256 | 0.386 | 0.523 | 0.653 | 0.763 | 0.849 | 0.909 | 0.949 | 0.973 | 0.986 | 0.993 | 0.997 | 0.999 | |
| 8.60 | | 0.002 | 0.009 | 0.028 | 0.070 | 0.142 | 0.246 | 0.373 | 0.509 | 0.640 | 0.752 | 0.840 | 0.903 | 0.945 | 0.970 | 0.985 | 0.993 | 0.997 | 0.999 | |
| 8.70 | | 0.002 | 0.008 | 0.026 | 0.066 | 0.135 | 0.235 | 0.360 | 0.496 | 0.627 | 0.741 | 0.831 | 0.897 | 0.940 | 0.967 | 0.983 | 0.992 | 0.996 | 0.998 | 0.999 |
| 8.80 | | 0.001 | 0.007 | 0.024 | 0.062 | 0.128 | 0.226 | 0.348 | 0.482 | 0.614 | 0.729 | 0.822 | 0.890 | 0.936 | 0.965 | 0.982 | 0.991 | 0.996 | 0.998 | 0.999 |
| 8.90 | | 0.001 | 0.007 | 0.022 | 0.057 | 0.119 | 0.211 | 0.330 | 0.462 | 0.594 | 0.712 | 0.808 | 0.879 | 0.929 | 0.960 | 0.979 | 0.989 | 0.995 | 0.998 | 0.999 |
| 9.00 | | 0.001 | 0.006 | 0.021 | 0.055 | 0.116 | 0.207 | 0.324 | 0.456 | 0.587 | 0.706 | 0.803 | 0.876 | 0.926 | 0.959 | 0.978 | 0.989 | 0.995 | 0.998 | 0.999 |

| LANDA | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9.10 | 0.001 | 0.006 | 0.020 | 0.052 | 0.110 | 0.198 | 0.312 | 0.443 | 0.574 | 0.694 | 0.793 | 0.868 | 0.921 | 0.955 | 0.976 | 0.988 | 0.94 | 0.997 | 0.999 | |
| 9.20 | 0.001 | 0.005 | 0.018 | 0.048 | 0.104 | 0.189 | 0.301 | 0.430 | 0.561 | 0.682 | 0.783 | 0.861 | 0.916 | 0.952 | 0.974 | 0.987 | 0.993 | 0.997 | 0.999 | |
| 9.30 | 0.001 | 0.004 | 0.017 | 0.046 | 0.099 | 0.181 | 0.290 | 0.417 | 0.548 | 0.670 | 0.773 | 0.853 | 0.910 | 0.948 | 0.972 | 0.985 | 0.993 | 0.997 | 0.998 | 0.999 |
| 9.40 | 0.001 | 0.004 | 0.016 | 0.043 | 0.093 | 0.173 | 0.279 | 0.404 | 0.535 | 0.658 | 0.763 | 0.845 | 0.904 | 0.944 | 0.969 | 0.984 | 0.992 | 0.996 | 0.998 | 0.999 |
| 9.50 | 0.001 | 0.004 | 0.015 | 0.040 | 0.089 | 0.165 | 0.269 | 0.392 | 0.522 | 0.645 | 0.752 | 0.836 | 0.898 | 0.940 | 0.967 | 0.982 | 0.991 | 0.996 | 0.998 | 0.999 |
| 9.60 | 0.001 | 0.004 | 0.014 | 0.038 | 0.084 | 0.157 | 0.258 | 0.380 | 0.509 | 0.633 | 0.741 | 0.828 | 0.892 | 0.936 | 0.964 | 0.981 | 0.990 | 0.995 | 0.998 | 0.999 |
| 9.70 | 0.001 | 0.004 | 0.013 | 0.035 | 0.079 | 0.150 | 0.248 | 0.368 | 0.496 | 0.621 | 0.730 | 0.819 | 0.885 | 0.931 | 0.961 | 0.979 | 0.989 | 0.994 | 0.997 | 0.999 |
| 9.80 | 0.001 | 0.003 | 0.012 | 0.033 | 0.075 | 0.143 | 0.239 | 0.356 | 0.483 | 0.608 | 0.719 | 0.810 | 0.879 | 0.927 | 0.958 | 0.977 | 0.988 | 0.994 | 0.997 | 0.999 |
| 9.90 | 0.001 | 0.003 | 0.011 | 0.031 | 0.071 | 0.137 | 0.229 | 0.344 | 0.470 | 0.596 | 0.708 | 0.801 | 0.872 | 0.922 | 0.955 | 0.975 | 0.987 | 0.993 | 0.997 | 0.999 |
| 10.00 | 0.000 | 0.003 | 0.010 | 0.030 | 0.070 | 0.130 | 0.220 | 0.333 | 0.458 | 0.583 | 0.697 | 0.782 | 0.864 | 0.917 | 0.951 | 0.973 | 0.986 | 0.993 | 0.997 | 0.998 |
| 10.20 | | 0.002 | 0.009 | 0.026 | 0.060 | 0.118 | 0.203 | 0.311 | 0.433 | 0.558 | 0.674 | 0.772 | 0.849 | 0.906 | 0.944 | 0.968 | 0.983 | 0.991 | 0.996 | 0.998 |
| 10.40 | | 0.002 | 0.008 | 0.023 | 0.053 | 0.107 | 0.186 | 0.290 | 0.409 | 0.533 | 0.650 | 0.752 | 0.834 | 0.894 | 0.935 | 0.963 | 0.980 | 0.989 | 0.995 | 0.998 |
| 10.50 | | 0.002 | 0.007 | 0.021 | 0.050 | 0.102 | 0.179 | 0.279 | 0.397 | 0.521 | 0.639 | 0.742 | 0.825 | 0.888 | 0.932 | 0.960 | 0.978 | 0.988 | 0.994 | 0.997 |
| 10.60 | | 0.002 | 0.007 | 0.020 | 0.048 | 0.097 | 0.171 | 0.269 | 0.385 | 0.508 | 0.627 | 0.732 | 0.817 | 0.882 | 0.927 | 0.957 | 0.976 | 0.987 | 0.994 | 0.997 |
| 10.80 | | 0.001 | 0.006 | 0.017 | 0.042 | 0.087 | 0.157 | 0.250 | 0.363 | 0.484 | 0.603 | 0.710 | 0.799 | 0.868 | 0.918 | 0.951 | 0.972 | 0.985 | 0.992 | 0.996 |
| 11.00 | | 0.001 | 0.005 | 0.015 | 0.037 | 0.079 | 0.143 | 0.232 | 0.341 | 0.460 | 0.579 | 0.687 | 0.781 | 0.854 | 0.907 | 0.944 | 0.968 | 0.982 | 0.991 | 0.995 |
| 11.20 | | 0.001 | 0.004 | 0.013 | 0.033 | 0.070 | 0.131 | 0.215 | 0.319 | 0.436 | 0.555 | 0.667 | 0.762 | 0.839 | 0.896 | 0.936 | 0.963 | 0.979 | 0.989 | 0.994 |
| 11.40 | | 0.001 | 0.004 | 0.012 | 0.029 | 0.064 | 0.119 | 0.198 | 0.299 | 0.413 | 0.532 | 0.644 | 0.743 | 0.823 | 0.885 | 0.928 | 0.957 | 0.976 | 0.987 | 0.993 |
| 11.50 | | 0.001 | 0.003 | 0.011 | 0.028 | 0.060 | 0.114 | 0.191 | 0.289 | 0.402 | 0.520 | 0.633 | 0.733 | 0.815 | 0.878 | 0.924 | 0.954 | 0.974 | 0.986 | 0.992 |
| 11.60 | | 0.001 | 0.003 | 0.010 | 0.026 | 0.057 | 0.108 | 0.183 | 0.279 | 0.391 | 0.508 | 0.622 | 0.723 | 0.807 | 0.872 | 0.908 | 0.951 | 0.972 | 0.984 | 0.992 |
| 11.80 | | 0.001 | 0.003 | 0.009 | 0.023 | 0.051 | 0.099 | 0.169 | 0.260 | 0.369 | 0.485 | 0.599 | 0.702 | 0.790 | 0.859 | 0.909 | 0.944 | 0.967 | 0.982 | 0.990 |
| 12.00 | | 0.001 | 0.002 | 0.008 | 0.020 | 0.046 | 0.090 | 0.155 | 0.242 | 0.347 | 0.462 | 0.576 | 0.682 | 0.772 | 0.844 | 0.899 | 0.937 | 0.963 | 0.979 | 0.988 |
| 12.20 | | 0.000 | 0.002 | 0.007 | 0.018 | 0.041 | 0.081 | 0.142 | 0.225 | 0.327 | 0.439 | 0.553 | 0.660 | 0.754 | 0.830 | 0.887 | 0.929 | 0.957 | 0.975 | 0.986 |
| 12.40 | | | 0.002 | 0.006 | 0.016 | 0.036 | 0.073 | 0.131 | 0.209 | 0.307 | 0.417 | 0.530 | 0.639 | 0.735 | 0.814 | 0.876 | 0.920 | 0.951 | 0.971 | 0.984 |
| 12.50 | | | 0.002 | 0.005 | 0.015 | 0.035 | 0.070 | 0.125 | 0.201 | 0.297 | 0.406 | 0.519 | 0.628 | 0.725 | 0.806 | 0.869 | 0.916 | 0.948 | 0.969 | 0.983 |
| 12.60 | | | 0.001 | 0.005 | 0.014 | 0.032 | 0.066 | 0.120 | 0.194 | 0.288 | 0.395 | 0.508 | 0.617 | 0.715 | 0.798 | 0.863 | 0.911 | 0.945 | 0.967 | 0.981 |
| 12.80 | | | 0.001 | 0.004 | 0.012 | 0.029 | 0.060 | 0.109 | 0.179 | 0.269 | 0.374 | 0.485 | 0.595 | 0.695 | 0.781 | 0.850 | 0.901 | 0.938 | 0.963 | 0.978 |
| 13.00 | | | 0.001 | 0.004 | 0.00 | 0.026 | 0.054 | 0.100 | 0.166 | 0.252 | 0.353 | 0.463 | 0.573 | 0.675 | 0.764 | 0.835 | 0.890 | 0.930 | 0.957 | 0.975 |
| 13.20 | | | 0.000 | 0.003 | 0.009 | 0.023 | 0.049 | 0.091 | 0.153 | 0.235 | 0.333 | 0.441 | 0.551 | 0.655 | 0.766 | 0.821 | 0.879 | 0.922 | 0.952 | 0.971 |
| 13.40 | | | | 0.003 | 0.008 | 0.020 | 0.044 | 0.083 | 0.141 | 0.249 | 0.319 | 0.420 | 0.529 | 0.634 | 0.727 | 0.805 | 0.867 | 0.913 | 0.945 | 0.967 |
| 13.50 | | | | 0.003 | 0.008 | 0.019 | 0.041 | 0.079 | 0.135 | 0.211 | 0.304 | 0.409 | 0.518 | 0.623 | 0.718 | 0.798 | 0.861 | 0.908 | 0.942 | 0.965 |
| 13.60 | | | | 0.002 | 0.007 | 0.018 | 0.040 | 0.075 | 0.130 | 0.204 | 0.295 | 0.399 | 0.507 | 0.613 | 0.708 | 0.789 | 0.854 | 0.904 | 0.939 | 0.963 |
| 13.80 | | | | 0.002 | 0.006 | 0.016 | 0.035 | 0.069 | 0.119 | 0.189 | 0.277 | 0.378 | 0.486 | 0.592 | 0.689 | 0.773 | 0.841 | 0.893 | 0.931 | 0.958 |
| 14.00 | | | | 0.002 | 0.005 | 0.014 | 0.032 | 0.062 | 0.109 | 0.176 | 0.260 | 0.368 | 0.464 | 0.570 | 0.669 | 0.756 | 0.827 | 0.883 | 0.923 | 0.952 |
| 14.20 | | | | 0.002 | 0.005 | 0.013 | 0.028 | 0.056 | 0.100 | 0.163 | 0.243 | 0.339 | 0.43 | 0.549 | 0.649 | 0.738 | 0.813 | 0.871 | 0.915 | 0.946 |
| 14.40 | | | | 0.001 | 0.004 | 0.011 | 0.025 | 0.051 | 0.092 | 0.151 | 0.228 | 0.320 | 0.423 | 0.528 | 0.630 | 0.720 | 0.797 | 0.859 | 0.906 | 0.940 |
| 14.50 | | | | 0.001 | 0.004 | 0.010 | 0.024 | 0.048 | 0.088 | 0.145 | 0.220 | 0.311 | 0.413 | 0.518 | 0.619 | 0.711 | 0.790 | 1.853 | 0.901 | 0.936 |
| 14.60 | | | | 0.001 | 0.004 | 0.010 | 0.023 | 0.046 | 0.084 | 0.139 | 0.213 | 0.302 | 0.402 | 0.507 | 0.609 | 0.702 | 0.782 | 0.847 | 0.896 | 0.933 |
| 14.80 | | | | 0.001 | 0.003 | 0.009 | 0.020 | 0.042 | 0.066 | 0.129 | 0.198 | 0.285 | 0.383 | 0.486 | 0.589 | 0.683 | 0.766 | 0.833 | 0.886 | 0.925 |
| 15.00 | | | | 0.001 | 0.003 | 0.008 | 0.018 | 0.037 | 0.070 | 0.118 | 0.185 | 0.268 | 0.363 | 0.466 | 0.568 | 0.664 | 0.749 | 0.819 | 0.875 | 0.917 |
| 15.20 | | | | 0.000 | 0.002 | 0.007 | 0.016 | 0.033 | 0.064 | 0.109 | 0.172 | 0.251 | 0.344 | 0.445 | 0.548 | 0.645 | 0.732 | 0.805 | 0.864 | 0.908 |
| 15.40 | | | | | 0.002 | 0.006 | 0.014 | 0.030 | 0.058 | 0.100 | 0.160 | 0.236 | 0.326 | 0.425 | 0.527 | 0.625 | 0.714 | 0.790 | 0.852 | 0.899 |
| 15.50 | | | | | 0.002 | 0.006 | 0.013 | 0.029 | 0.055 | 0.096 | 0.154 | 0.228 | 0.317 | 0.415 | 0.517 | 0.615 | 0.705 | 0.782 | 0.846 | 0.894 |
| 15.60 | | | | | 0.002 | 0.005 | 0.013 | 0.027 | 0.053 | 0.092 | 0.148 | 0.221 | 0.308 | 0.406 | 0.507 | 0.606 | 0.696 | 0.775 | 0.839 | 0.889 |
| 15.80 | | | | | 0.002 | 0.005 | 0.012 | 0.025 | 0.048 | 0.084 | 0.137 | 0.207 | 0.291 | 0.386 | 0.487 | 0.586 | 0.678 | 0.759 | 0.826 | 0.879 |
| 16.00 | | | | | 0.001 | 0.004 | 0.010 | 0.022 | 0.043 | 0.077 | 0.127 | 0.193 | 0.275 | 0.368 | 0.467 | 0.566 | 0.659 | 0.742 | 0.812 | 0.868 |
| 16.20 | | | | | 0.001 | 0.004 | 0.009 | 0.020 | 0.039 | 0.071 | 0.117 | 0.180 | 0.259 | 0.349 | 0.447 | 0.546 | 0.641 | 0.726 | 0.798 | 0.857 |
| 16.40 | | | | | 0.001 | 0.003 | 0.008 | 0.018 | 0.035 | 0.065 | 0.108 | 0.168 | 0.243 | 0.331 | 0.428 | 0.526 | 0.622 | 0.708 | 0.783 | 0.845 |
| 16.50 | | | | | 0.001 | 0.003 | 0.007 | 0.017 | 0.034 | 0.062 | 0.104 | 0.162 | 0.236 | 0.323 | 0.418 | 0.516 | 0.612 | 0.700 | 0.776 | 0.838 |
| 16.60 | | | | | 0.001 | 0.003 | 0.007 | 0.016 | 0.032 | 0.059 | 0.100 | 0.156 | 0.228 | 0.315 | 0.409 | 0.507 | 0.602 | 0.691 | 0.768 | 0.832 |
| 16.80 | | | | | 0.001 | 0.002 | 0.006 | 0.014 | 0.029 | 0.054 | 0.092 | 0.145 | 0.214 | 0.297 | 0.390 | 0.487 | 0.583 | 0.673 | 0.752 | 0.819 |
| 17.00 | | | | | 0.001 | 0.002 | 0.005 | 0.013 | 0.026 | 0.049 | 0.084 | 0.135 | 0.201 | 0.281 | 0.371 | 0.468 | 0.564 | 0.655 | 0.736 | 0.805 |
| 17.20 | | | | | 0.001 | 0.002 | 0.005 | 0.011 | 0.024 | 0.045 | 0.078 | 0.125 | 0.188 | 0.265 | 0.353 | 0.449 | 0.545 | 0.637 | 0.720 | 0.791 |
| 17.40 | | | | | 0.001 | 0.002 | 0.004 | 0.010 | 0.021 | 0.040 | 0.071 | 0.116 | 0.176 | 0.250 | 0.336 | 0.430 | 0.526 | 0.618 | 0.703 | 0.777 |
| 17.50 | | | | | 0.000 | 0.001 | 0.004 | 0.009 | 0.020 | 0.039 | 0.068 | 0.112 | 0.170 | 0.243 | 0.328 | 0.420 | 0.516 | 0.609 | 0.695 | 0.769 |
| 17.60 | | | | | | 0.001 | 0.003 | 0.009 | 0.019 | 0.037 | 0.065 | 0.107 | 0.164 | 0.235 | 0.319 | 0.411 | 0.506 | 0.600 | 0.686 | 0.762 |
| 17.80 | | | | | | 0.001 | 0.003 | 0.008 | 0.017 | 0.033 | 0.060 | 0.099 | 0.153 | 0.221 | 0.303 | 0.393 | 0.487 | 0.581 | 0.669 | 0.746 |
| 18.00 | | | | | | 0.001 | 0.003 | 0.007 | 0.015 | 0.030 | 0.055 | 0.092 | 0.143 | 0.208 | 0.287 | 0.375 | 0.469 | 0.562 | 0.651 | 0.731 |
| 18.20 | | | | | | 0.001 | 0.003 | 0.006 | 0.014 | 0.027 | 0.050 | 0.084 | 0.133 | 0.195 | 0.271 | 0.358 | 0.450 | 0.544 | 0.633 | 0.715 |

| LANDA | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-------|---|---|---|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 18.40 | | | | | | 0.000 | 0.002 | 0.006 | 0.012 | 0.025 | 0.046 | 0.078 | 0.123 | 0.183 | 0.256 | 0.341 | 0.432 | 0.525 | 0.615 | 0.698 |
| 18.50 | | | | | | | 0.002 | 0.005 | 0.012 | 0.024 | 0.044 | 0.075 | 0.119 | 0.177 | 0.249 | 0.332 | 0.423 | 0.516 | 0.806 | 0.690 |
| 18.60 | | | | | | | 0.002 | 0.005 | 0.011 | 0.022 | 0.042 | 0.072 | 0.115 | 0.171 | 0.242 | 0.324 | 0.414 | 0.506 | 0.597 | 0.681 |
| 18.80 | | | | | | | 0.002 | 0.004 | 0.010 | 0.020 | 0.038 | 0.066 | 0.106 | 0.160 | 0.228 | 0.308 | 0.396 | 0.488 | 0.579 | 0.664 |
| 19.00 | | | | | | | 0.001 | 0.004 | 0.009 | 0.018 | 0.035 | 0.061 | 0.098 | 0.150 | 0.215 | 0.292 | 0.37 | 0.489 | 0.561 | 0.647 |
| 19.20 | | | | | | | 0.001 | 0.003 | 0.008 | 0.017 | 0.031 | 0.056 | 0.091 | 0.140 | 0.202 | 0.277 | 0.361 | 0.451 | 0.542 | 0.630 |
| 19.40 | | | | | | | 0.001 | 0.003 | 0.007 | 0.015 | 0.029 | 0.051 | 0.084 | 0.130 | 0.190 | 0.262 | 0.345 | 0.433 | 0.524 | 0.612 |
| 19.50 | | | | | | | 0.001 | 0.003 | 0.007 | 0.014 | 0.027 | 0.049 | 0.081 | 0.126 | 0.184 | 0.255 | 0.336 | 0.425 | 0.515 | 0.603 |
| 19.60 | | | | | | | 0.001 | 0.003 | 0.006 | 0.013 | 0.026 | 0.047 | 0.078 | 0.121 | 0.178 | 0.248 | 0.328 | 0.416 | 0.506 | 0.595 |
| 19.80 | | | | | | | 0.001 | 0.002 | 0.006 | 0.012 | 0.024 | 0.043 | 0.072 | 0.113 | 0.167 | 0.234 | 0.312 | 0.398 | 0.488 | 0.577 |
| 20.00 | | | | | | | 0.001 | 0.002 | 0.005 | 0.011 | 0.021 | 0.039 | 0.066 | 0.105 | 0.157 | 0.221 | 0.297 | 0.381 | 0.470 | 0.559 |
| 20.20 | | | | | | | 0.001 | 0.002 | 0.004 | 0.010 | 0.019 | 0.036 | 0.061 | 0.097 | 0.146 | 0.208 | 0.282 | 0.365 | 0.453 | 0.541 |
| 20.40 | | | | | | | 0.001 | 0.002 | 0.004 | 0.009 | 0.018 | 0.033 | 0.056 | 0.090 | 0.137 | 0.196 | 0.268 | 0.348 | 0.435 | 0.524 |
| 20.50 | | | | | | | 0.001 | 0.002 | 0.004 | 0.008 | 0.017 | 0.031 | 0.054 | 0.087 | 0.132 | 0.190 | 0.260 | 0.340 | 0.426 | 0.515 |
| 20.60 | | | | | | | 0.000 | 0.001 | 0.004 | 0.008 | 0.016 | 0.030 | 0.051 | 0.084 | 0.128 | 0.185 | 0.254 | 0.332 | 0.418 | 0.506 |
| 20.80 | | | | | | | | 0.001 | 0.003 | 0.008 | 0.014 | 0.027 | 0.047 | 0.077 | 0.119 | 0.174 | 0.240 | 0.317 | 0.401 | 0.488 |
| 21.00 | | | | | | | | 0.001 | 0.003 | 0.006 | 0.013 | 0.024 | 0.043 | 0.071 | 0.111 | 0.163 | 0.227 | 0.302 | 0.384 | 0.471 |
| 21.20 | | | | | | | | 0.001 | 0.002 | 0.006 | 0.012 | 0.022 | 0.040 | 0.066 | 0.103 | 0.153 | 0.214 | 0.287 | 0.368 | 0.454 |
| 21.40 | | | | | | | | 0.001 | 0.002 | 0.005 | 0.010 | 0.020 | 0.036 | 0.061 | 0.096 | 0.143 | 0.202 | 0.273 | 0.352 | 0.437 |
| 21.50 | | | | | | | | 0.001 | 0.002 | 0.005 | 0.010 | 0.019 | 0.035 | 0.059 | 0.093 | 0.139 | 0.196 | 0.266 | 0.344 | 0.428 |
| 21.60 | | | | | | | | 0.001 | 0.002 | 0.004 | 0.009 | 0.018 | 0.033 | 0.056 | 0.089 | 0.134 | 0.191 | 0.259 | 0.336 | 0.420 |
| 21.80 | | | | | | | | 0.001 | 0.002 | 0.004 | 0.008 | 0.017 | 0.030 | 0.052 | 0.083 | 0.125 | 0.180 | 0.245 | 0.321 | 0.403 |
| 22.00 | | | | | | | | 0.001 | 0.002 | 0.003 | 0.008 | 0.015 | 0.028 | 0.048 | 0.077 | 0.117 | 0.169 | 0.233 | 0.306 | 0.387 |
| 22.20 | | | | | | | | 0.000 | 0.001 | 0.003 | 0.007 | 0.014 | 0.025 | 0.044 | 0.071 | 0.109 | 0.159 | 0.220 | 0.291 | 0.371 |
| 22.40 | | | | | | | | | 0.001 | 0.003 | 0.006 | 0.012 | 0.023 | 0.040 | 0.066 | 0.102 | 0.149 | 0.208 | 0.277 | 0.355 |
| 22.50 | | | | | | | | | 0.001 | 0.003 | 0.006 | 0.011 | 0.022 | 0.039 | 0.063 | 0.098 | 0.144 | 0.202 | 0.271 | 0.347 |
| 22.60 | | | | | | | | | 0.001 | 0.003 | 0.006 | 0.011 | 0.021 | 0.037 | 0.061 | 0.094 | 0.140 | 0.196 | 0.264 | 0.340 |
| 22.80 | | | | | | | | | 0.001 | 0.002 | 0.005 | 0.010 | 0.019 | 0.034 | 0.056 | 0.088 | 0.131 | 0.186 | 0.254 | 0.325 |
| 23.00 | | | | | | | | | 0.001 | 0.002 | 0.004 | 0.009 | 0.017 | 0.031 | 0.052 | 0.082 | 0.123 | 0.175 | 0.238 | 0.310 |
| 23.20 | | | | | | | | | 0.001 | 0.002 | 0.004 | 0.008 | 0.016 | 0.028 | 0.048 | 0.076 | 0.115 | 0.165 | 0.225 | 0.296 |
| 23.40 | | | | | | | | | 0.001 | 0.002 | 0.004 | 0.007 | 0.014 | 0.026 | 0.044 | 0.071 | 0.107 | 0.155 | 1.213 | 0.282 |
| 23.50 | | | | | | | | | 0.000 | 0.001 | 0.003 | 0.007 | 0.014 | 0.025 | 0.042 | 0.068 | 0.104 | 0.150 | 0.208 | 0.275 |
| 23.60 | | | | | | | | | | 0.001 | 0.003 | 0.007 | 0.013 | 0.024 | 0.041 | 0.066 | 0.100 | 0.146 | 0.202 | 0.268 |
| 23.80 | | | | | | | | | | 0.001 | 0.003 | 0.006 | 0.012 | 0.022 | 0.037 | 0.061 | 0.093 | 0.137 | 0.191 | 0.255 |
| 24.00 | | | | | | | | | | 0.001 | 0.003 | 0.005 | 0.011 | 0.020 | 0.034 | 0.056 | 0.087 | 0.128 | 0.180 | 0.243 |
| 24.20 | | | | | | | | | | 0.001 | 0.002 | 0.005 | 0.010 | 0.018 | 0.032 | 0.052 | 0.081 | 0.120 | 0.170 | 0.230 |
| 24.40 | | | | | | | | | | 0.001 | 0.002 | 0.004 | 0.009 | 0.017 | 0.029 | 0.048 | 0.075 | 0.113 | 0.160 | 0.249 |
| 24.50 | | | | | | | | | | 0.001 | 0.002 | 0.004 | 0.008 | 0.016 | 0.028 | 0.046 | 0.073 | 0.109 | 0.156 | 0.213 |
| 24.60 | | | | | | | | | | 0.001 | 0.002 | 0.004 | 0.008 | 0.015 | 0.027 | 0.044 | 0.070 | 0.105 | 0.151 | 0.207 |
| 24.80 | | | | | | | | | | 0.001 | 0.002 | 0.004 | 0.007 | 0.014 | 0.024 | 0.041 | 0.065 | 0.099 | 0.142 | 0.196 |
| 25.00 | | | | | | | | | | 0.000 | 0.001 | 0.003 | 0.006 | 0.012 | 0.022 | 0.038 | 0.060 | 0.092 | 0.134 | 0.185 |

Tabla 8. Distribución t de Student.

| Distribución t de Student | | | | | | | |
|----------------------------------|-------------|-------------|-------------|--------------|-------------|--------------|---------------|
| gl | 0.75 | 0.90 | 0.95 | 0.975 | 0.99 | 0.995 | 0.9995 |
| 1 | 1.000 | 3.078 | 6.314 | 12.706 | 31.821 | 63.657 | 636.619 |
| 2 | 0.816 | 1.886 | 2.920 | 4.303 | 6.965 | 9.925 | 31.598 |
| 3 | 0.765 | 1.638 | 2.353 | 3.182 | 4.541 | 5.841 | 12.941 |
| 4 | 0.741 | 1.533 | 2.132 | 2.776 | 3.747 | 4.604 | 8.610 |
| 5 | 0.727 | 1.476 | 2.015 | 2.571 | 3.365 | 4.032 | 6.859 |
| 6 | 0.718 | 1.440 | 1.943 | 2.447 | 3.143 | 3.707 | 5.959 |
| 7 | 0.711 | 1.415 | 1.895 | 2.365 | 2.998 | 3.499 | 5.405 |
| 8 | 0.706 | 1.397 | 1.860 | 2.306 | 2.896 | 3.355 | 5.041 |
| 9 | 0.703 | 1.383 | 1.833 | 2.262 | 2.821 | 3.250 | 4.781 |
| 10 | 0.700 | 1.372 | 1.812 | 2.228 | 2.764 | 3.169 | 4.587 |
| 11 | 0.697 | 1.363 | 1.796 | 2.201 | 2.718 | 3.106 | 4.437 |
| 12 | 0.695 | 1.356 | 1.782 | 2.179 | 2.681 | 3.055 | 4.318 |
| 13 | 0.694 | 1.350 | 1.771 | 2.160 | 2.650 | 3.012 | 4.221 |
| 14 | 0.692 | 1.345 | 1.761 | 2.145 | 2.624 | 2.977 | 4.140 |
| 15 | 0.691 | 1.341 | 1.753 | 2.131 | 2.602 | 2.947 | 4.073 |
| 16 | 0.690 | 1.337 | 1.746 | 2.120 | 2.583 | 2.921 | 4.015 |
| 17 | 0.689 | 1.333 | 1.740 | 2.110 | 2.567 | 2.898 | 3.965 |
| 18 | 0.688 | 1.330 | 1.734 | 2.101 | 2.552 | 2.878 | 3.922 |
| 19 | 0.688 | 1.328 | 1.729 | 2.093 | 2.539 | 2.861 | 3.883 |
| 20 | 0.687 | 1.325 | 1.725 | 2.086 | 2.528 | 2.845 | 3.850 |
| 21 | 0.686 | 1.323 | 1.721 | 2.080 | 2.518 | 2.831 | 3.819 |
| 22 | 0.686 | 1.321 | 1.717 | 2.074 | 2.508 | 2.819 | 3.792 |
| 23 | 0.685 | 1.319 | 1.714 | 2.069 | 2.500 | 2.807 | 3.767 |
| 24 | 0.685 | 1.318 | 1.711 | 2.064 | 2.492 | 2.797 | 3.745 |
| 25 | 0.684 | 1.316 | 1.708 | 2.060 | 2.485 | 2.787 | 3.725 |
| 26 | 0.684 | 1.315 | 1.706 | 2.056 | 2.479 | 2.779 | 3.707 |
| 27 | 0.684 | 1.314 | 1.703 | 2.052 | 2.473 | 2.771 | 3.690 |
| 28 | 0.683 | 1.313 | 1.701 | 2.048 | 2.467 | 2.763 | 3.674 |
| 29 | 0.683 | 1.311 | 1.699 | 2.045 | 2.462 | 2.756 | 3.659 |
| 30 | 0.683 | 1.310 | 1.697 | 2.042 | 2.457 | 2.750 | 3.646 |
| 40 | 0.681 | 1.303 | 1.684 | 2.021 | 2.423 | 2.704 | 3.551 |
| 60 | 0.679 | 1.296 | 1.671 | 2.000 | 2.390 | 2.660 | 3.460 |
| 120 | 0.677 | 1.289 | 1.658 | 1.980 | 2.358 | 2.617 | 3.373 |

Tabla 9. Puntos Porcentuales del Estadístico Rango Estudentizado (5%) para la Prueba de Tukey

| <i>f</i> | <i>p</i> | | | | | | | | | | | | | | |
|----------|----------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 1 | 18.10 | 26.70 | 32.8 | 37.20 | 40.50 | 43.10 | 45.40 | 47.30 | 49.10 | 50.60 | 51.90 | 53.20 | 54.30 | 55.40 | 56.30 |
| 2 | 6.09 | 8.28 | 9.80 | 10.89 | 11.73 | 12.43 | 13.03 | 13.54 | 13.99 | 14.39 | 14.75 | 15.08 | 15.38 | 15.65 | 15.90 |
| 3 | 4.50 | 5.88 | 6.83 | 7.51 | 8.04 | 8.47 | 8.85 | 9.18 | 9.46 | 9.72 | 9.95 | 10.16 | 10.35 | 10.52 | 10.60 |
| 4 | 3.93 | 5.00 | 5.76 | 6.31 | 6.73 | 7.06 | 7.35 | 7.60 | 7.83 | 8.03 | 8.21 | 8.37 | 8.52 | 8.67 | 8.80 |
| 5 | 3.61 | 4.54 | 5.18 | 5.64 | 5.99 | 6.28 | 6.52 | 6.74 | 6.93 | 7.10 | 7.25 | 7.39 | 7.52 | 7.64 | 7.75 |
| 6 | 3.46 | 4.34 | 4.90 | 5.31 | 5.63 | 5.89 | 6.12 | 6.32 | 6.49 | 6.65 | 6.79 | 6.92 | 7.04 | 7.14 | 7.24 |
| 7 | 3.34 | 4.16 | 4.68 | 5.06 | 5.35 | 5.59 | 5.80 | 5.99 | 6.15 | 6.29 | 6.42 | 6.54 | 6.65 | 6.75 | 6.84 |
| 8 | 3.26 | 4.04 | 4.53 | 4.89 | 5.17 | 5.40 | 5.60 | 5.77 | 5.92 | 6.05 | 6.18 | 6.29 | 6.39 | 6.48 | 6.57 |
| 9 | 3.20 | 3.95 | 4.42 | 4.76 | 5.02 | 5.24 | 5.43 | 5.60 | 5.74 | 5.87 | 5.98 | 6.09 | 6.19 | 6.28 | 6.36 |
| 10 | 3.15 | 3.88 | 4.33 | 4.66 | 4.91 | 5.12 | 5.30 | 5.46 | 5.60 | 5.72 | 5.83 | 5.93 | 6.03 | 6.12 | 6.20 |
| 11 | 3.11 | 3.82 | 4.26 | 4.58 | 4.82 | 5.03 | 5.20 | 5.35 | 5.49 | 5.61 | 5.71 | 5.81 | 5.90 | 5.98 | 6.06 |
| 12 | 3.08 | 3.77 | 4.20 | 4.51 | 4.75 | 4.95 | 5.12 | 5.27 | 5.40 | 5.51 | 5.61 | 5.71 | 5.80 | 5.88 | 5.95 |
| 13 | 3.06 | 3.73 | 4.15 | 4.46 | 4.69 | 4.88 | 5.05 | 5.19 | 5.32 | 5.43 | 5.53 | 5.63 | 5.71 | 5.79 | 5.86 |
| 14 | 3.03 | 3.70 | 4.11 | 4.41 | 4.64 | 4.83 | 4.99 | 5.13 | 5.25 | 5.36 | 5.46 | 5.56 | 5.64 | 5.72 | 5.79 |
| 15 | 3.01 | 3.67 | 4.08 | 4.37 | 4.59 | 4.78 | 4.94 | 5.08 | 5.20 | 5.31 | 5.40 | 5.49 | 5.57 | 5.65 | 5.72 |
| 16 | 3.00 | 3.65 | 4.05 | 4.34 | 4.56 | 4.74 | 4.90 | 5.03 | 5.15 | 5.26 | 5.35 | 5.44 | 5.52 | 5.59 | 5.66 |
| 17 | 2.98 | 3.62 | 4.02 | 4.31 | 4.52 | 4.70 | 4.86 | 4.99 | 5.11 | 5.21 | 5.31 | 5.39 | 5.47 | 5.55 | 5.61 |
| 18 | 2.97 | 3.61 | 4.00 | 4.28 | 4.49 | 4.67 | 4.83 | 4.96 | 5.07 | 5.17 | 5.27 | 5.35 | 5.43 | 5.50 | 5.57 |
| 19 | 2.96 | 3.59 | 3.98 | 4.26 | 4.47 | 4.64 | 4.79 | 4.92 | 5.04 | 5.14 | 5.23 | 5.32 | 5.39 | 5.46 | 5.53 |
| 20 | 2.95 | 3.58 | 3.96 | 4.24 | 4.45 | 4.62 | 4.77 | 4.90 | 5.01 | 5.11 | 5.20 | 5.28 | 5.36 | 5.43 | 5.50 |
| 24 | 2.92 | 3.53 | 3.90 | 4.17 | 4.37 | 4.54 | 4.68 | 4.81 | 4.92 | 5.01 | 5.10 | 5.18 | 5.25 | 5.32 | 5.38 |
| 30 | 2.89 | 3.48 | 3.84 | 4.11 | 4.30 | 4.46 | 4.60 | 4.72 | 4.83 | 4.92 | 5.00 | 5.08 | 5.15 | 5.21 | 5.27 |
| 40 | 2.86 | 3.44 | 3.79 | 4.04 | 4.23 | 4.39 | 4.52 | 4.63 | 4.74 | 4.82 | 4.90 | 4.98 | 5.05 | 5.11 | 5.17 |
| 60 | 2.83 | 3.40 | 3.74 | 3.98 | 4.16 | 4.31 | 4.44 | 4.55 | 4.65 | 4.73 | 4.81 | 4.88 | 4.94 | 5.00 | 5.06 |
| 120 | 2.80 | 3.36 | 3.69 | 3.92 | 4.10 | 4.24 | 4.36 | 4.47 | 4.56 | 4.64 | 4.71 | 4.78 | 4.84 | 4.90 | 4.95 |
| ∞ | 2.77 | 3.32 | 3.63 | 3.86 | 4.03 | 4.17 | 4.29 | 4.39 | 4.47 | 4.55 | 4.62 | 4.68 | 4.74 | 4.80 | 4.84 |

**Tabla 10. Sumas de probabilidades binomial $\sum b(x;n,p)$
X=0**

| n | r | <i>p</i> | | | | | | | | | |
|---|---|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | .10 | .20 | .25 | .30 | .40 | .50 | .60 | .70 | .80 | .90 |
| 1 | 0 | .9000 | .8000 | .7500 | .7000 | .6000 | .5000 | .4000 | .3000 | .2000 | .1000 |
| | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2 | 0 | .8100 | .6400 | .5625 | .4900 | .3600 | .2500 | .1600 | .0900 | .0400 | .0100 |
| | 1 | .9900 | .9600 | .9375 | .9100 | .8400 | .7500 | .6400 | .5100 | .3600 | .1900 |
| | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 3 | 0 | .7290 | .5120 | .4219 | .3430 | .2160 | .1250 | .0640 | .0270 | .0080 | .0010 |
| | 1 | .9720 | .8960 | .8438 | .7840 | .6480 | .5000 | .3520 | .2160 | .1040 | .0280 |
| | 2 | .9990 | .9920 | .9844 | .9730 | .9360 | .8750 | .7840 | .6570 | .4880 | .2710 |
| | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 4 | 0 | .6561 | .4096 | .3164 | .2401 | .1296 | .0625 | .0256 | .0081 | .0016 | .0001 |
| | 1 | .9477 | .8192 | .7383 | .6517 | .4752 | .3125 | .1792 | .0837 | .0272 | .0037 |
| | 2 | .9963 | .9728 | .9492 | .9163 | .8208 | .6875 | .5248 | .3483 | .1808 | .0523 |
| | 3 | .9999 | .9984 | .9961 | .9919 | .9744 | .9375 | .8704 | .7599 | .5904 | .3439 |
| | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 5 | 0 | .5905 | .3277 | .2373 | .1681 | .0778 | .0312 | .0102 | .0024 | .0003 | .0000 |
| | 1 | .9185 | .7373 | .6328 | .5282 | .3370 | .1875 | .0870 | .0308 | .0067 | .0005 |
| | 2 | .9914 | .9421 | .8965 | .8369 | .6826 | .5000 | .3174 | .1631 | .0579 | .0086 |
| | 3 | .9995 | .9933 | .9844 | .9692 | .9130 | .8125 | .6630 | .4718 | .2627 | .0815 |
| | 4 | 1.000 | .9997 | .9990 | .9976 | .9898 | .9688 | .9222 | .8319 | .6723 | .4095 |
| | 5 | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 6 | 0 | .5314 | .2621 | .1780 | .1176 | .0467 | .0156 | .0041 | .0007 | .0001 | .0000 |
| | 1 | .8857 | .6554 | .5339 | .4202 | .2333 | .1094 | .0410 | .0109 | .0016 | .0001 |
| | 2 | .9841 | .9011 | .8306 | .7443 | .5443 | .3438 | .1792 | .0705 | .0170 | .0013 |
| | 3 | .9987 | .9830 | .9624 | .9295 | .8208 | .6563 | .4557 | .2557 | .0989 | .0158 |
| | 4 | .9999 | .9984 | .9954 | .9891 | .9590 | .8906 | .7667 | .5798 | .3447 | .1143 |
| | 5 | 1.000 | .9999 | .9998 | .9993 | .9959 | .9844 | .9533 | .8824 | .7379 | .4686 |
| | 6 | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 7 | 0 | .4783 | .2097 | .1335 | .0824 | .0280 | .0078 | .0016 | .0002 | .0000 | |
| | 1 | .8503 | .5767 | .4449 | .3294 | .1586 | .0625 | .0188 | .0038 | .0004 | .0000 |
| | 2 | .9743 | .8520 | .7564 | .6471 | .4199 | .2266 | .0963 | .0288 | .0047 | .0002 |
| | 3 | .9973 | .9667 | .9294 | .8740 | .7102 | .5000 | .2898 | .1260 | .0333 | .0027 |
| | 4 | .9998 | .9953 | .9871 | .9712 | .9037 | .7734 | .5801 | .3529 | .1480 | .0257 |
| | 5 | 1.000 | .9996 | .9987 | .9962 | .9812 | .9375 | .8414 | .6706 | .4233 | .1497 |
| | 6 | | 1.000 | .9999 | .9998 | .9984 | .9922 | .9720 | .9176 | .7903 | .5217 |
| | 7 | | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

**Tabla 10. (continuación) Sumas de probabilidades binomial $\sum b(x;n,p)$
X=0**

| n | r | p | | | | | | | | | |
|----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | .10 | .20 | .25 | .30 | .40 | .50 | .60 | .70 | .80 | .90 |
| 8 | 0 | .4305 | .1678 | .1001 | .0576 | .0168 | .0039 | .0007 | .0001 | .0000 | |
| | 1 | .8131 | .5033 | .3671 | .2553 | .1064 | .0352 | .0085 | .0013 | .0001 | |
| | 2 | .9619 | .7969 | .6785 | .5518 | .3154 | .1445 | .0498 | .0113 | .0012 | .0000 |
| | 3 | .9950 | .9437 | .8862 | .8059 | .5941 | .3633 | .1737 | .0580 | .0104 | .0004 |
| | 4 | .9996 | .9896 | .9727 | .9420 | .8263 | .6367 | .4059 | .1941 | .0563 | .0050 |
| | 5 | 1.000 | .9988 | .9958 | .9887 | .9502 | .8555 | .6846 | .4482 | .0203 | .0381 |
| | 6 | | .9991 | .9996 | .9987 | .9915 | .9648 | .8936 | .7447 | .4967 | .1869 |
| | 7 | | 1.000 | 1.000 | .9999 | .9993 | .9961 | .9832 | .9424 | .8322 | .5695 |
| | 8 | | | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 9 | 0 | .3784 | .1342 | .0751 | .0404 | .0101 | .0020 | .0003 | .0000 | | |
| | 1 | .7748 | .4362 | .3003 | .1960 | .0705 | .0195 | .0038 | .0004 | .0000 | |
| | 2 | .9470 | .7382 | .6007 | .4628 | .2318 | .0898 | .0250 | .0043 | .0003 | .0000 |
| | 3 | .9917 | .9144 | .8343 | .7297 | .4826 | .2539 | .0994 | .0253 | .0031 | .0001 |
| | 4 | .9991 | .9804 | .9511 | .9012 | .7334 | .5000 | .2666 | .0988 | .0196 | .0009 |
| | 5 | .9999 | .9969 | .9900 | .9747 | .9006 | .7461 | .5174 | .2703 | .0856 | .0083 |
| | 6 | 1.000 | .9997 | .9987 | .9957 | .9750 | .9102 | .7682 | .5372 | .2618 | .0530 |
| | 7 | | 1.000 | .9999 | .9996 | .9962 | .9805 | .9295 | .8040 | .5638 | .2252 |
| | 8 | | | 1.000 | 1.000 | .9997 | .9980 | .9899 | .9596 | .8658 | .6126 |
| | 9 | | | | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 10 | 0 | .3487 | .1074 | .0563 | .0282 | .0060 | .0010 | .0001 | .0000 | | |
| | 1 | .7361 | .3758 | .2440 | .1493 | .0464 | .0107 | .0017 | .0001 | .0000 | |
| | 2 | .9298 | .6778 | .5256 | .3828 | .1673 | .0547 | .0123 | .0016 | .0001 | |
| | 3 | .9872 | .8791 | .7759 | .6496 | .3823 | .1719 | .0548 | .0106 | .0009 | .0000 |
| | 4 | .9984 | .9672 | .9219 | .8497 | .6331 | .3770 | .1662 | .0474 | .0064 | .0002 |
| | 5 | .9999 | .9936 | .9803 | .9527 | .8338 | .6230 | .3669 | .1503 | .0328 | .0016 |
| | 6 | 1.000 | .9991 | .9965 | .9894 | .9452 | .8281 | .6177 | .3504 | .1209 | .0128 |
| | 7 | | .9999 | .9996 | .9984 | .9877 | .9453 | .8327 | .6172 | .3222 | .0702 |
| | 8 | | 1.000 | 1.000 | .9999 | .9983 | .9893 | .9536 | .8507 | .6242 | .2639 |
| | 9 | | | | 1.000 | .9999 | .9990 | .9940 | .9718 | .8926 | .6513 |
| | | 10 | | | | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| | 0 | | | | | | | | | | |

Tabla 10. (continuación) Sumas de probabilidades binomial $\sum b(x;n,p)$

| n | r | p | | | | | | | | | |
|----|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | .10 | .20 | .25 | .30 | .40 | .50 | .60 | .70 | .80 | .90 |
| 11 | 0 | .3138 | .0859 | .0422 | .0198 | .0036 | .0005 | .0000 | | | |
| | 1 | .6974 | .3221 | .1971 | .1130 | .0302 | .0059 | .0007 | .0000 | | |
| | 2 | .9104 | .6174 | .4552 | .3127 | .1189 | .0327 | .0059 | .0006 | .0000 | |
| | 3 | .9815 | .8369 | .7133 | .5696 | .2963 | .1133 | .0293 | .0043 | .0002 | |
| | 4 | .9972 | .9496 | .8854 | .7897 | .5328 | .2744 | .0994 | .0216 | .0020 | .0000 |
| | 5 | .9997 | .9883 | .9657 | .9218 | .7535 | .5000 | .2465 | .0782 | .0117 | .0003 |
| | 6 | 1.000 | .9980 | .9924 | .9784 | .9006 | .7256 | .4672 | .2103 | .0504 | .0028 |
| | 7 | | .9998 | .9988 | .9957 | .9707 | .8867 | .7037 | .4304 | .1611 | .0185 |
| | 8 | | 1.000 | .9999 | .9994 | .9941 | .9673 | .8811 | .6873 | .3826 | .0896 |
| | 9 | | | 1.000 | 1.000 | .9993 | .9941 | .9698 | .8870 | .6779 | .3026 |
| | 10 | | | | | 1.000 | .9995 | .9964 | .9802 | .9141 | .6862 |
| 11 | | | | | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | |
| 12 | 0 | .2824 | .0687 | .0317 | .0138 | .0022 | .0002 | .0000 | | | |
| | 1 | .6590 | .2749 | .1584 | .0850 | .0196 | .0032 | .0003 | .0000 | | |
| | 2 | .8891 | .5583 | .3907 | .2228 | .0834 | .0730 | .0028 | .0002 | .0000 | |
| | 3 | .9744 | .7946 | .6488 | .4925 | .2253 | .1938 | .0153 | .0017 | .0001 | |
| | 4 | .9957 | .9274 | .8424 | .7237 | .4382 | .3872 | .0573 | .0095 | .0006 | .0000 |
| | 5 | .9995 | .9806 | .9456 | .8821 | .6652 | .6128 | .1582 | .0386 | .0039 | .0001 |
| | 6 | .9999 | .9961 | .9857 | .9614 | .8418 | .8062 | .3348 | .1178 | .0194 | .0005 |
| | 7 | 1.000 | .9994 | .9972 | .9905 | .9427 | .9270 | .5618 | .2763 | .0726 | .0043 |
| | 8 | | .9999 | .9996 | .9983 | .9487 | .9807 | .7747 | .5075 | .2054 | .0256 |
| | 9 | | 1.000 | 1.000 | .9998 | .9972 | .9968 | .9166 | .7472 | .4417 | .1109 |
| | 10 | | | | 1.000 | .9997 | .9998 | .9804 | .9150 | .7251 | .3410 |
| | 11 | | | | | 1.000 | 1.000 | .9978 | .9862 | .9313 | .7176 |
| 12 | | | | | | | 1.000 | 1.000 | 1.000 | 1.000 | |
| 13 | 0 | .2542 | .0550 | .0238 | .0097 | .0013 | .0001 | .0000 | | | |
| | 1 | .6213 | .2336 | .1267 | .0637 | .0126 | .0017 | .0001 | .0000 | | |
| | 2 | .8661 | .5017 | .3326 | .2025 | .0579 | .0012 | .0013 | .0001 | | |
| | 3 | .9658 | .7473 | .5843 | .4206 | .1686 | .0461 | .0078 | .0007 | .0000 | |
| | 4 | .9935 | .9009 | .7940 | .6543 | .3530 | .1334 | .0321 | .0040 | .0002 | |
| | 5 | .9991 | .9700 | .9198 | .8346 | .5744 | .2905 | .0977 | .0182 | .0012 | .0000 |
| | 6 | .9999 | .9930 | .9757 | .9376 | .7712 | .5000 | .2288 | .0624 | .0070 | .0001 |
| | 7 | 1.000 | .9980 | .9944 | .9818 | .9023 | .7095 | .4256 | .1654 | .0300 | .0009 |
| | 8 | | .9998 | .9990 | .9960 | .9679 | .8666 | .6470 | .3457 | .0991 | .0065 |
| | 9 | | 1.000 | .9999 | .9993 | .9922 | .9513 | .8314 | .5794 | .2527 | .0342 |
| | 10 | | | 1.000 | .9999 | .9987 | .9888 | .9421 | .7975 | .4983 | .1339 |
| | 11 | | | | 1.000 | .9999 | .9983 | .9874 | .9363 | .7664 | .3787 |
| | 12 | | | | | 1.000 | .9999 | .9987 | .9903 | .9450 | .7458 |
| 13 | | | | | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | |

Tabla 10. (continuación) Sumas de probabilidades binomial $\sum b(x;n,p)$

| n | r | <i>p</i> | | | | | | | | | | | | |
|----|----|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| | | .10 | .20 | .25 | .30 | .40 | .50 | .60 | .70 | .80 | .90 | | | |
| 14 | 0 | .2288 | .0440 | .0178 | .0068 | .0008 | .0001 | .0000 | | | | | | |
| | 1 | .5846 | .1979 | .1010 | .0475 | .0081 | .0009 | .0001 | | | | | | |
| | 2 | .8416 | .4481 | .2811 | .1608 | .0398 | .0065 | .0006 | .0000 | | | | | |
| | 3 | .9559 | .6982 | .5213 | .3552 | .1243 | .0287 | .0039 | .0002 | | | | | |
| | 4 | .9908 | .8702 | .7415 | .5842 | .2793 | .0898 | .0175 | .0017 | .0000 | | | | |
| | 5 | .9985 | .9561 | .8883 | .7805 | .4859 | .2120 | .0583 | .0083 | .0004 | | | | |
| | 6 | .9998 | .9884 | .9617 | .9067 | .6925 | .3953 | .1501 | .0315 | .0024 | .0000 | | | |
| | 7 | 1.000 | .9976 | .9897 | .9685 | .8499 | .6047 | .3075 | .0933 | .0016 | .0002 | | | |
| | 8 | | .9996 | .9978 | .9917 | .9417 | .7880 | .5141 | .2195 | .0439 | .0015 | | | |
| | 9 | | 1.000 | .9997 | .9983 | .9825 | .9102 | .7207 | .4158 | .1298 | .0092 | | | |
| | 10 | | | 1.000 | .9998 | .9961 | .9713 | .8757 | .6448 | .3018 | .0441 | | | |
| | 11 | | | | 1.000 | .9994 | .9935 | .9602 | .8392 | .5519 | .1584 | | | |
| | 12 | | | | | .9999 | .9991 | .9919 | .9525 | .8021 | .4154 | | | |
| | 13 | | | | | | 1.000 | .9999 | .9992 | .9932 | .9560 | .7712 | | |
| 14 | | | | | | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | | |
| 15 | 0 | .2059 | .0352 | .0134 | .0047 | .0005 | .0000 | | | | | | | |
| | 1 | .5490 | .1671 | .0802 | .0353 | .0052 | .0005 | .0000 | | | | | | |
| | 2 | .8159 | .3980 | .2361 | .1268 | .0271 | .0037 | .0003 | .0000 | | | | | |
| | 3 | .9444 | .6482 | .4613 | .2969 | .0905 | .0176 | .0019 | .0001 | | | | | |
| | 4 | .9873 | .8358 | .6865 | .5155 | .2173 | .0592 | .0094 | .0007 | .0000 | | | | |
| | 5 | .9978 | .9389 | .8516 | .7216 | .4032 | .1509 | .0338 | .0037 | .0001 | | | | |
| | 6 | .9997 | .9819 | .9434 | .8689 | .6098 | .3036 | .0951 | .0152 | .0008 | | | | |
| | 7 | 1.000 | .9958 | .9827 | .9500 | .7869 | .5000 | .2131 | .0500 | .0042 | .0000 | | | |
| | 8 | | .9992 | .9958 | .9848 | .9050 | .6964 | .3902 | .1311 | .0181 | .0003 | | | |
| | 9 | | .9999 | .9992 | .9963 | .9662 | .8491 | .5968 | .2784 | .0611 | .0023 | | | |
| | 10 | | | 1.000 | .9999 | .9993 | .9907 | .9408 | .7827 | .4845 | .1642 | .0127 | | |
| | 11 | | | | 1.000 | .9999 | .9981 | .9824 | .9095 | .7031 | .3518 | .0556 | | |
| | 12 | | | | | 1.000 | .9997 | .9963 | .9729 | .8732 | .6020 | .1841 | | |
| | 13 | | | | | | 1.000 | .9995 | .9948 | .9647 | .8329 | .4510 | | |
| | 14 | | | | | | | 1.000 | .9995 | .9953 | .9648 | .7941 | | |
| 15 | | | | | | | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | | |

Tabla 10. (continuación) Sumas de probabilidades binomial $\sum b(x;n,p)$

| n | r | p | | | | | | | | | | | | | | |
|----|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|--|
| | | .10 | .20 | .25 | .30 | .40 | .50 | .60 | .70 | .80 | .90 | | | | | |
| 16 | 0 | .1853 | .0281 | .0100 | .0033 | .0003 | .0000 | | | | | | | | | |
| | 1 | .5147 | .1407 | .0635 | .0261 | .0033 | .0003 | .0000 | | | | | | | | |
| | 2 | .7892 | .3518 | .1971 | .0994 | .0183 | .0021 | .0001 | | | | | | | | |
| | 3 | .9316 | .5981 | .4050 | .2459 | .0651 | .0106 | .0009 | .0000 | | | | | | | |
| | 4 | .9830 | .7982 | .6302 | .4499 | .1666 | .0384 | .0049 | .0003 | | | | | | | |
| | 5 | .9967 | .9183 | .8103 | .6598 | .3288 | .1051 | .0191 | .0016 | .0000 | | | | | | |
| | 6 | .9995 | .9733 | .9204 | .8247 | .5272 | .2272 | .0583 | .0071 | .0002 | | | | | | |
| | 7 | .9999 | .9930 | .9729 | .9256 | .7161 | .4018 | .1423 | .0257 | .0015 | .0000 | | | | | |
| | 8 | 1.000 | .9985 | .9925 | .9743 | .8577 | .5982 | .2839 | .0744 | .0070 | .0001 | | | | | |
| | 9 | | .9998 | .9984 | .9929 | .9417 | .7728 | .4728 | .1753 | .0267 | .0005 | | | | | |
| | 10 | | 1.000 | .9997 | .9984 | .9809 | .8949 | .6712 | .3402 | .0817 | .0033 | | | | | |
| | 11 | | | 1.000 | .9997 | .9951 | .9616 | .8334 | .5501 | .2018 | .0170 | | | | | |
| | 12 | | | | 1.000 | .9991 | .9894 | .9349 | .7541 | .4019 | .0684 | | | | | |
| | 13 | | | | | .9999 | .9979 | .9817 | .9006 | .6482 | .2108 | | | | | |
| | 14 | | | | | 1.000 | .9997 | .9967 | .9739 | .8593 | .4853 | | | | | |
| | 15 | | | | | | 1.000 | .9997 | .9967 | .9719 | .8147 | | | | | |
| 16 | | | | | | | 1.000 | 1.000 | 1.000 | 1.000 | | | | | | |
| 17 | 0 | .1668 | .0225 | .0075 | .0023 | .0002 | .0000 | | | | | | | | | |
| | 1 | .4818 | .1182 | .0501 | .0193 | .0021 | .0001 | .0000 | | | | | | | | |
| | 2 | .7618 | .3096 | .1637 | .0774 | .0123 | .0012 | .0001 | | | | | | | | |
| | 3 | .9174 | .5489 | .3530 | .2019 | .0464 | .0064 | .0005 | .0000 | | | | | | | |
| | 4 | .9779 | .7582 | .5739 | .3887 | .1260 | .0245 | .0025 | .0001 | | | | | | | |
| | 5 | .9953 | .8943 | .7653 | .5698 | .2639 | .0717 | .0106 | .0007 | .0000 | | | | | | |
| | 6 | .9992 | .9623 | .8929 | .7752 | .4478 | .1662 | .0348 | .0032 | .0001 | | | | | | |
| | 7 | .9999 | .9891 | .9598 | .8954 | .6405 | .3145 | .0919 | .0127 | .0005 | | | | | | |
| | 8 | 1.000 | .9974 | .9876 | .9597 | .8011 | .5000 | .1989 | .0403 | .0026 | .0000 | | | | | |
| | 9 | | .9995 | .9969 | .9873 | .9081 | .6855 | .3595 | .1046 | .0109 | .0001 | | | | | |
| | 10 | | .9999 | .9994 | .9968 | .9652 | .8338 | .5522 | .2248 | .0377 | .0008 | | | | | |
| | 11 | | 1.000 | .9999 | .9993 | .9894 | .9283 | .7361 | .4032 | .1057 | .0047 | | | | | |
| | 12 | | | 1.000 | .9999 | .9975 | .9755 | .8740 | .6113 | .2418 | .0221 | | | | | |
| | 13 | | | | 1.000 | .9995 | .9936 | .9536 | .7981 | .4511 | .0826 | | | | | |
| | 14 | | | | | .9999 | .9988 | .9877 | .9226 | .6904 | .2382 | | | | | |
| | 15 | | | | | 1.000 | .9999 | .9979 | .9807 | .8818 | .5182 | | | | | |
| | 16 | | | | | | 1.000 | .9998 | .9977 | .9975 | .8332 | | | | | |
| 17 | | | | | | | 1.000 | 1.000 | 1.000 | 1.000 | | | | | | |

Tabla 10. (continuación) Sumas de probabilidades binomial $\sum b(x;n,p)$

| n | r | <i>p</i> | | | | | | | | | | | | | | | | | | |
|----|----|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|--|--|--|--|
| | | .10 | .20 | .25 | .30 | .40 | .50 | .60 | .70 | .80 | .90 | | | | | | | | | |
| 18 | 0 | .0501 | .0180 | .0056 | .0016 | .0001 | .0000 | | | | | | | | | | | | | |
| | 1 | .4503 | .0991 | .0395 | .0142 | .0013 | .0001 | | | | | | | | | | | | | |
| | 2 | .7338 | .2713 | .1353 | .0600 | .0082 | .0007 | .0000 | | | | | | | | | | | | |
| | 3 | .9018 | .5010 | .3057 | .1646 | .0328 | .0038 | .0002 | | | | | | | | | | | | |
| | 4 | .9718 | .7164 | .5787 | .3327 | .0942 | .0154 | .0013 | .0000 | | | | | | | | | | | |
| | 5 | .9936 | .8671 | .7175 | .5344 | .2088 | .0481 | .0058 | .0003 | | | | | | | | | | | |
| | 6 | .9988 | .9487 | .8610 | .7217 | .3743 | .1189 | .0203 | .0014 | .0000 | | | | | | | | | | |
| | 7 | .9998 | .9837 | .9431 | .8593 | .5634 | .2403 | .0576 | .0061 | .0002 | | | | | | | | | | |
| | 8 | 1.000 | .9957 | .9807 | .9404 | .7368 | .4073 | .1347 | .0210 | .0009 | | | | | | | | | | |
| | 9 | | .9991 | .9946 | .9790 | .8653 | .5927 | .2632 | .0596 | .0043 | .0000 | | | | | | | | | |
| | 10 | | .9998 | .9988 | .9939 | .9424 | .7597 | .4366 | .1407 | .0163 | .0002 | | | | | | | | | |
| | 11 | | 1.000 | .9998 | .9986 | .9797 | .8811 | .6257 | .2783 | .0513 | .0012 | | | | | | | | | |
| | 12 | | | 1.000 | .9997 | .9942 | .9519 | .7912 | .4656 | .1329 | .0064 | | | | | | | | | |
| | 13 | | | | 1.000 | .9987 | .9846 | .9058 | .6673 | .2836 | .0282 | | | | | | | | | |
| | 14 | | | | | .9998 | .9962 | .9672 | .8354 | .4990 | .0982 | | | | | | | | | |
| | 15 | | | | | 1.000 | .9993 | .9918 | .9940 | .7287 | .2662 | | | | | | | | | |
| | 16 | | | | | | .9999 | .9987 | .9858 | .9009 | .5497 | | | | | | | | | |
| | 17 | | | | | | 1.000 | .9999 | .9984 | .9820 | .8499 | | | | | | | | | |
| | 18 | | | | | | | 1.000 | 1.000 | 1.000 | 1.000 | | | | | | | | | |
| 19 | 0 | .1351 | .0144 | .0042 | .0011 | .0001 | | | | | | | | | | | | | | |
| | 1 | .4203 | .0829 | .0310 | .0104 | .0008 | .0000 | | | | | | | | | | | | | |
| | 2 | .7054 | .2369 | .1113 | .0462 | .0055 | .0004 | .0000 | | | | | | | | | | | | |
| | 3 | .8850 | .4551 | .2631 | .1332 | .0230 | .0022 | .0001 | | | | | | | | | | | | |
| | 4 | .9648 | .6733 | .4654 | .2822 | .0696 | .0096 | .0006 | .0000 | | | | | | | | | | | |
| | 5 | .9914 | .8369 | .6678 | .4739 | .1629 | .0318 | .0031 | .0001 | | | | | | | | | | | |
| | 6 | .993 | .9324 | .8251 | .6655 | .3081 | .0835 | .0116 | .0006 | | | | | | | | | | | |
| | 7 | .9997 | .9767 | .9225 | .8180 | .4878 | .1796 | .0352 | .0028 | .0000 | | | | | | | | | | |
| | 8 | 1.000 | .9933 | .9713 | .9161 | .6675 | .3238 | .0885 | .0105 | .0003 | | | | | | | | | | |
| | 9 | | .9984 | .9911 | .9674 | .8139 | .5500 | .1861 | .0326 | .0016 | | | | | | | | | | |
| | 10 | | .9997 | .9977 | .9895 | .9115 | .6762 | .3325 | .0839 | .0067 | .0000 | | | | | | | | | |
| | 11 | | .9999 | .9995 | .9972 | .9648 | .8204 | .5122 | .1820 | .0233 | .0003 | | | | | | | | | |
| | 12 | | 1.000 | .9999 | .9994 | .9884 | .9165 | .6919 | .3345 | .0676 | .0017 | | | | | | | | | |
| | 13 | | | 1.000 | .9999 | .9969 | .9682 | .8371 | .5261 | .1631 | .0086 | | | | | | | | | |
| | 14 | | | | 1.000 | .9994 | .9904 | .9304 | .7178 | .3267 | .0352 | | | | | | | | | |
| | 15 | | | | | .9999 | .9978 | .9770 | .8668 | .5449 | .1150 | | | | | | | | | |
| | 16 | | | | | 1.000 | .9996 | .9945 | .9538 | .7631 | .2946 | | | | | | | | | |
| | 17 | | | | | | 1.000 | .9992 | .9896 | .9171 | .5797 | | | | | | | | | |
| | 18 | | | | | | | .9999 | .9989 | .9856 | .8649 | | | | | | | | | |
| | 19 | | | | | | | | 1.000 | 1.000 | 1.000 | 1.000 | | | | | | | | |

Tabla 10. (continuación) Sumas de probabilidades binomial $\sum b(x;n,p)$

| n | r | <i>p</i> | | | | | | | | | | | | | | | | | | |
|----|----|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|--|--|--|--|--|
| | | .10 | .20 | .25 | .30 | .40 | .50 | .60 | .70 | .80 | .90 | | | | | | | | | |
| 20 | 0 | .1216 | .0115 | .0032 | .0008 | .0000 | | | | | | | | | | | | | | |
| | 1 | .3917 | .0692 | .0243 | .0076 | .0005 | .0000 | | | | | | | | | | | | | |
| | 2 | .6769 | .2061 | .0913 | .0355 | .0036 | .0002 | .0000 | | | | | | | | | | | | |
| | 3 | .8670 | .4114 | .2252 | .1071 | .0160 | .0013 | .0001 | | | | | | | | | | | | |
| | 4 | .9568 | .6296 | .4148 | .2375 | .0510 | .0059 | .0003 | | | | | | | | | | | | |
| | 5 | .9887 | .8042 | .6172 | .4164 | .1256 | .0207 | .0016 | .0000 | | | | | | | | | | | |
| | 6 | .9976 | .9133 | .7858 | .6080 | .2500 | .0577 | .0065 | .0003 | | | | | | | | | | | |
| | 7 | .9996 | .9679 | .8982 | .7723 | .4159 | .1316 | .0210 | .0013 | .0000 | | | | | | | | | | |
| | 8 | .9999 | .9900 | .9591 | .8867 | .5956 | .2517 | .0565 | .0051 | .0001 | | | | | | | | | | |
| | 9 | 1.000 | .9974 | .9861 | .9520 | .7553 | .4119 | .1275 | .0171 | .0006 | | | | | | | | | | |
| | 10 | | .9994 | .9961 | .9829 | .8725 | .5881 | .2447 | .0480 | .0026 | .0000 | | | | | | | | | |
| | 11 | | .9999 | .9991 | .9949 | .9435 | .7483 | .4044 | .1133 | .0100 | .0001 | | | | | | | | | |
| | 12 | | 1.000 | .9998 | .9987 | .9790 | .8684 | .5841 | .2277 | .0321 | .0004 | | | | | | | | | |
| | 13 | | | 1.000 | .9997 | .9935 | .9423 | .7500 | .3920 | .0867 | .0024 | | | | | | | | | |
| | 14 | | | | 1.000 | .9984 | .9793 | .8744 | .5836 | .1958 | .0113 | | | | | | | | | |
| | 15 | | | | | .9997 | .9941 | .9490 | .7625 | .3704 | .0432 | | | | | | | | | |
| | 16 | | | | | 1.000 | .9987 | .9840 | .8929 | .5886 | .1330 | | | | | | | | | |
| | 17 | | | | | | .9998 | .9964 | .9645 | .7939 | .3231 | | | | | | | | | |
| | 18 | | | | | | 1.000 | .9995 | .9924 | .9308 | .6083 | | | | | | | | | |
| | 19 | | | | | | | 1.000 | .9992 | .9885 | .8784 | | | | | | | | | |
| | 20 | | | | | | | | 1.000 | 1.000 | 1.000 | | | | | | | | | |