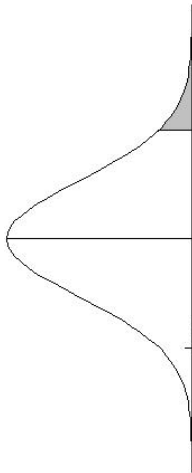


**TABLA 2: DISTRIBUCIÓN t DE STUDENT**

Puntos de porcentaje de la distribución t



Ejemplo:

Para  $\phi = 10$  grados de libertad:

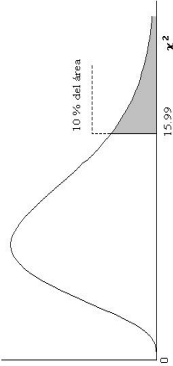
$$P\{t > 1.812\} = 0.05$$

$$P\{t < -1.812\} = 0.05$$

| $\alpha$ | 0.25  | 0.2   | 0.15  | 0.1   | 0.05  | 0.025  | 0.01   | 0.005  | 0.0005  |
|----------|-------|-------|-------|-------|-------|--------|--------|--------|---------|
| 1        | 1.000 | 1.376 | 1.963 | 3.078 | 6.314 | 12.706 | 31.821 | 63.656 | 636.578 |
| 2        | 0.816 | 1.061 | 1.386 | 1.886 | 2.920 | 4.303  | 6.965  | 9.925  | 31.600  |
| 3        | 0.765 | 0.978 | 1.250 | 1.638 | 2.353 | 3.182  | 4.541  | 5.841  | 12.924  |
| 4        | 0.741 | 0.941 | 1.190 | 1.533 | 2.132 | 2.776  | 3.747  | 4.604  | 8.610   |
| 5        | 0.727 | 0.920 | 1.156 | 1.476 | 2.015 | 2.571  | 3.365  | 4.032  | 6.889   |
| 6        | 0.718 | 0.906 | 1.134 | 1.440 | 1.943 | 2.447  | 3.143  | 3.707  | 5.959   |
| 7        | 0.711 | 0.896 | 1.119 | 1.415 | 1.895 | 2.365  | 2.998  | 3.499  | 5.408   |
| 8        | 0.706 | 0.889 | 1.108 | 1.397 | 1.860 | 2.306  | 2.896  | 3.355  | 5.041   |
| 9        | 0.703 | 0.883 | 1.100 | 1.383 | 1.833 | 2.262  | 2.821  | 3.250  | 4.781   |
| 10       | 0.700 | 0.879 | 1.093 | 1.372 | 1.812 | 2.228  | 2.764  | 3.169  | 4.587   |
| 11       | 0.697 | 0.876 | 1.088 | 1.363 | 1.796 | 2.201  | 2.718  | 3.106  | 4.437   |
| 12       | 0.695 | 0.873 | 1.083 | 1.356 | 1.782 | 2.179  | 2.681  | 3.055  | 4.318   |
| 13       | 0.694 | 0.870 | 1.079 | 1.350 | 1.771 | 2.160  | 2.650  | 3.012  | 4.221   |
| 14       | 0.692 | 0.868 | 1.076 | 1.345 | 1.761 | 2.145  | 2.624  | 2.977  | 4.140   |
| 15       | 0.691 | 0.866 | 1.074 | 1.341 | 1.753 | 2.131  | 2.602  | 2.947  | 4.073   |
| 16       | 0.690 | 0.865 | 1.071 | 1.337 | 1.746 | 2.120  | 2.583  | 2.921  | 4.015   |
| 17       | 0.689 | 0.863 | 1.069 | 1.333 | 1.740 | 2.110  | 2.567  | 2.898  | 3.965   |
| 18       | 0.688 | 0.862 | 1.067 | 1.330 | 1.734 | 2.101  | 2.552  | 2.878  | 3.922   |
| 19       | 0.688 | 0.861 | 1.066 | 1.328 | 1.729 | 2.093  | 2.539  | 2.861  | 3.883   |
| 20       | 0.687 | 0.860 | 1.064 | 1.325 | 1.725 | 2.086  | 2.528  | 2.845  | 3.850   |
| 21       | 0.686 | 0.859 | 1.063 | 1.323 | 1.721 | 2.080  | 2.518  | 2.831  | 3.819   |
| 22       | 0.686 | 0.858 | 1.061 | 1.321 | 1.717 | 2.074  | 2.508  | 2.819  | 3.792   |
| 23       | 0.685 | 0.858 | 1.060 | 1.319 | 1.714 | 2.069  | 2.500  | 2.807  | 3.768   |
| 24       | 0.685 | 0.857 | 1.059 | 1.318 | 1.711 | 2.064  | 2.492  | 2.797  | 3.745   |
| 25       | 0.684 | 0.856 | 1.058 | 1.316 | 1.708 | 2.060  | 2.485  | 2.787  | 3.725   |
| 26       | 0.684 | 0.856 | 1.058 | 1.315 | 1.706 | 2.056  | 2.479  | 2.779  | 3.707   |
| 27       | 0.684 | 0.855 | 1.057 | 1.314 | 1.703 | 2.052  | 2.473  | 2.771  | 3.689   |
| 28       | 0.683 | 0.855 | 1.056 | 1.313 | 1.701 | 2.048  | 2.467  | 2.763  | 3.674   |
| 29       | 0.683 | 0.854 | 1.055 | 1.311 | 1.699 | 2.045  | 2.462  | 2.756  | 3.660   |
| 30       | 0.683 | 0.854 | 1.055 | 1.310 | 1.697 | 2.042  | 2.457  | 2.750  | 3.646   |
| 40       | 0.681 | 0.851 | 1.050 | 1.303 | 1.684 | 2.021  | 2.423  | 2.704  | 3.551   |
| 60       | 0.679 | 0.848 | 1.045 | 1.286 | 1.671 | 2.000  | 2.380  | 2.660  | 3.480   |
| 120      | 0.677 | 0.845 | 1.041 | 1.269 | 1.658 | 1.980  | 2.338  | 2.617  | 3.373   |
| $\infty$ | 0.674 | 0.842 | 1.036 | 1.252 | 1.645 | 1.960  | 2.326  | 2.576  | 3.280   |

**TABLA 3: DISTRIBUCIÓN  $\chi^2$**

Puntos de porcentaje de la distribución  $\chi^2$



Ejemplo:

Para  $\phi = 10$  grados de libertad

$$P\{\chi^2 > 15.99\} = 0.10$$

| $\phi$       | 0.995 | 0.99  | 0.975 | 0.95  | 0.9   | 0.75   | 0.5   | 0.25  | 0.1   | 0.05  | 0.025 | 0.01  | 0.005 | $\pi$        |
|--------------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------------|
| 1            | 3.841 | 3.841 | 3.841 | 3.841 | 3.841 | 3.841  | 3.841 | 3.841 | 3.841 | 3.841 | 3.841 | 3.841 | 3.841 | 1            |
| 2            | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000  | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 2            |
| 3            | 7.171 | 7.171 | 7.171 | 7.171 | 7.171 | 7.171  | 7.171 | 7.171 | 7.171 | 7.171 | 7.171 | 7.171 | 7.171 | 3            |
| 4            | 0.207 | 0.207 | 0.207 | 0.207 | 0.207 | 0.207  | 0.207 | 0.207 | 0.207 | 0.207 | 0.207 | 0.207 | 0.207 | 4            |
| 5            | 0.412 | 0.412 | 0.412 | 0.412 | 0.412 | 0.412  | 0.412 | 0.412 | 0.412 | 0.412 | 0.412 | 0.412 | 0.412 | 5            |
| 6            | 0.676 | 0.676 | 0.676 | 0.676 | 0.676 | 0.676  | 0.676 | 0.676 | 0.676 | 0.676 | 0.676 | 0.676 | 0.676 | 6            |
| 7            | 0.989 | 0.989 | 0.989 | 0.989 | 0.989 | 0.989  | 0.989 | 0.989 | 0.989 | 0.989 | 0.989 | 0.989 | 0.989 | 7            |
| 8            | 1.344 | 1.344 | 1.344 | 1.344 | 1.344 | 1.344  | 1.344 | 1.344 | 1.344 | 1.344 | 1.344 | 1.344 | 1.344 | 8            |
| 9            | 1.735 | 1.735 | 1.735 | 1.735 | 1.735 | 1.735  | 1.735 | 1.735 | 1.735 | 1.735 | 1.735 | 1.735 | 1.735 | 9            |
| 10           | 2.16  | 2.16  | 2.16  | 2.16  | 2.16  | 2.16   | 2.16  | 2.16  | 2.16  | 2.16  | 2.16  | 2.16  | 2.16  | 10           |
| 11           | 2.60  | 2.60  | 2.60  | 2.60  | 2.60  | 2.60   | 2.60  | 2.60  | 2.60  | 2.60  | 2.60  | 2.60  | 2.60  | 11           |
| 12           | 3.07  | 3.07  | 3.07  | 3.07  | 3.07  | 3.07   | 3.07  | 3.07  | 3.07  | 3.07  | 3.07  | 3.07  | 3.07  | 12           |
| 13           | 3.57  | 3.57  | 3.57  | 3.57  | 3.57  | 3.57   | 3.57  | 3.57  | 3.57  | 3.57  | 3.57  | 3.57  | 3.57  | 13           |
| 14           | 4.07  | 4.07  | 4.07  | 4.07  | 4.07  | 4.07   | 4.07  | 4.07  | 4.07  | 4.07  | 4.07  | 4.07  | 4.07  | 14           |
| 15           | 4.60  | 4.60  | 4.60  | 4.60  | 4.60  | 4.60   | 4.60  | 4.60  | 4.60  | 4.60  | 4.60  | 4.60  | 4.60  | 15           |
| 16           | 5.14  | 5.14  | 5.14  | 5.14  | 5.14  | 5.14   | 5.14  | 5.14  | 5.14  | 5.14  | 5.14  | 5.14  | 5.14  | 16           |
| 17           | 5.70  | 5.70  | 5.70  | 5.70  | 5.70  | 5.70   | 5.70  | 5.70  | 5.70  | 5.70  | 5.70  | 5.70  | 5.70  | 17           |
| 18           | 6.26  | 6.26  | 6.26  | 6.26  | 6.26  | 6.26   | 6.26  | 6.26  | 6.26  | 6.26  | 6.26  | 6.26  | 6.26  | 18           |
| 19           | 6.84  | 6.84  | 6.84  | 6.84  | 6.84  | 6.84   | 6.84  | 6.84  | 6.84  | 6.84  | 6.84  | 6.84  | 6.84  | 19           |
| 20           | 7.43  | 7.43  | 7.43  | 7.43  | 7.43  | 7.43   | 7.43  | 7.43  | 7.43  | 7.43  | 7.43  | 7.43  | 7.43  | 20           |
| 21           | 8.03  | 8.03  | 8.03  | 8.03  | 8.03  | 8.03   | 8.03  | 8.03  | 8.03  | 8.03  | 8.03  | 8.03  | 8.03  | 21           |
| 22           | 8.64  | 8.64  | 8.64  | 8.64  | 8.64  | 8.64   | 8.64  | 8.64  | 8.64  | 8.64  | 8.64  | 8.64  | 8.64  | 22           |
| 23           | 9.26  | 9.26  | 9.26  | 9.26  | 9.26  | 9.26   | 9.26  | 9.26  | 9.26  | 9.26  | 9.26  | 9.26  | 9.26  | 23           |
| 24           | 9.89  | 9.89  | 9.89  | 9.89  | 9.89  | 9.89   | 9.89  | 9.89  | 9.89  | 9.89  | 9.89  | 9.89  | 9.89  | 24           |
| 25           | 10.52 | 10.52 | 10.52 | 10.52 | 10.52 | 10.52  | 10.52 | 10.52 | 10.52 | 10.52 | 10.52 | 10.52 | 10.52 | 25           |
| 26           | 11.16 | 11.16 | 11.16 | 11.16 | 11.16 | 11.16  | 11.16 | 11.16 | 11.16 | 11.16 | 11.16 | 11.16 | 11.16 | 26           |
| 27           | 11.81 | 11.81 | 11.81 | 11.81 | 11.81 | 11.81  | 11.81 | 11.81 | 11.81 | 11.81 | 11.81 | 11.81 | 11.81 | 27           |
| 28           | 12.46 | 12.46 | 12.46 | 12.46 | 12.46 | 12.46  | 12.46 | 12.46 | 12.46 | 12.46 | 12.46 | 12.46 | 12.46 | 28           |
| 29           | 13.12 | 13.12 | 13.12 | 13.12 | 13.12 | 13.12  | 13.12 | 13.12 | 13.12 | 13.12 | 13.12 | 13.12 | 13.12 | 29           |
| 30           | 13.79 | 13.79 | 13.79 | 13.79 | 13.79 | 13.79  | 13.79 | 13.79 | 13.79 | 13.79 | 13.79 | 13.79 | 13.79 | 30           |
| 40           | 20.7  | 20.7  | 20.7  | 20.7  | 20.7  | 20.7   | 20.7  | 20.7  | 20.7  | 20.7  | 20.7  | 20.7  | 20.7  | 40           |
| 50           | 28.0  | 28.0  | 28.0  | 28.0  | 28.0  | 28.0   | 28.0  | 28.0  | 28.0  | 28.0  | 28.0  | 28.0  | 28.0  | 50           |
| 60           | 35.3  | 35.3  | 35.3  | 35.3  | 35.3  | 35.3   | 35.3  | 35.3  | 35.3  | 35.3  | 35.3  | 35.3  | 35.3  | 60           |
| 70           | 43.0  | 43.0  | 43.0  | 43.0  | 43.0  | 43.0   | 43.0  | 43.0  | 43.0  | 43.0  | 43.0  | 43.0  | 43.0  | 70           |
| 80           | 51.2  | 51.2  | 51.2  | 51.2  | 51.2  | 51.2   | 51.2  | 51.2  | 51.2  | 51.2  | 51.2  | 51.2  | 51.2  | 80           |
| 90           | 59.2  | 59.2  | 59.2  | 59.2  | 59.2  | 59.2   | 59.2  | 59.2  | 59.2  | 59.2  | 59.2  | 59.2  | 59.2  | 90           |
| 100          | 67.3  | 67.3  | 67.3  | 67.3  | 67.3  | 67.3   | 67.3  | 67.3  | 67.3  | 67.3  | 67.3  | 67.3  | 67.3  | 100          |
| $Z_{\alpha}$ | -2.58 | -2.33 | -1.96 | -1.64 | -1.28 | -0.674 | 0.000 | 0.674 | 1.282 | 1.645 | 1.96  | 2.33  | 2.58  | $Z_{\alpha}$ |

Para  $\phi > 100$  tómese:  $\chi^2 = \frac{1}{2}(Z_{\alpha} + \sqrt{2\phi - 1})^2$ .  $Z_{\alpha}$  es la desviación normal estandarizada correspondiente al nivel de significancia y se muestra en la parte superior de la tabla.