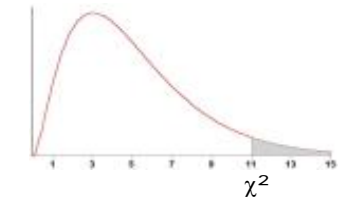
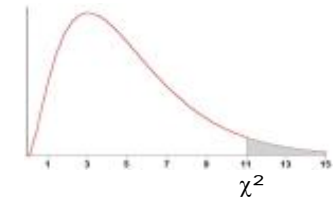


**Tabla D.7: VALORES CRÍTICOS DE LA DISTRIBUCIÓN JI CUADRADA**



|       | 0,001   | 0,005   | 0,01    | 0,02    | 0,025   | 0,03    | 0,04    | 0,05    | 0,10    | 0,15    | 0,20    | 0,25    | 0,30    | 0,35    | 0,40    |       |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| g.d.l |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | g.d.l |
| 1     | 10,828  | 7,879   | 6,635   | 5,412   | 5,024   | 4,709   | 4,218   | 3,841   | 2,706   | 2,072   | 1,642   | 1,323   | 1,074   | 0,873   | 0,708   | 1     |
| 2     | 13,816  | 10,597  | 9,210   | 7,824   | 7,378   | 7,013   | 6,438   | 5,991   | 4,605   | 3,794   | 3,219   | 2,773   | 2,408   | 2,100   | 1,833   | 2     |
| 3     | 16,266  | 12,838  | 11,345  | 9,837   | 9,348   | 8,947   | 8,311   | 7,815   | 6,251   | 5,317   | 4,642   | 4,108   | 3,665   | 3,283   | 2,946   | 3     |
| 4     | 18,467  | 14,860  | 13,277  | 11,668  | 11,143  | 10,712  | 10,026  | 9,488   | 7,779   | 6,745   | 5,989   | 5,385   | 4,878   | 4,438   | 4,045   | 4     |
| 5     | 20,515  | 16,750  | 15,086  | 13,388  | 12,833  | 12,375  | 11,644  | 11,070  | 9,236   | 8,115   | 7,289   | 6,626   | 6,064   | 5,573   | 5,132   | 5     |
| 6     | 22,458  | 18,548  | 16,812  | 15,033  | 14,449  | 13,968  | 13,198  | 12,592  | 10,645  | 9,446   | 8,558   | 7,841   | 7,231   | 6,695   | 6,211   | 6     |
| 7     | 24,322  | 20,278  | 18,475  | 16,622  | 16,013  | 15,509  | 14,703  | 14,067  | 12,017  | 10,748  | 9,803   | 9,037   | 8,383   | 7,806   | 7,283   | 7     |
| 8     | 26,124  | 21,955  | 20,090  | 18,168  | 17,535  | 17,010  | 16,171  | 15,507  | 13,362  | 12,027  | 11,030  | 10,219  | 9,524   | 8,909   | 8,351   | 8     |
| 9     | 27,877  | 23,589  | 21,666  | 19,679  | 19,023  | 18,480  | 17,608  | 16,919  | 14,684  | 13,288  | 12,242  | 11,389  | 10,656  | 10,006  | 9,414   | 9     |
| 10    | 29,588  | 25,188  | 23,209  | 21,161  | 20,483  | 19,922  | 19,021  | 18,307  | 15,987  | 14,534  | 13,442  | 12,549  | 11,781  | 11,097  | 10,473  | 10    |
| 11    | 31,264  | 26,757  | 24,725  | 22,618  | 21,920  | 21,342  | 20,412  | 19,675  | 17,275  | 15,767  | 14,631  | 13,701  | 12,899  | 12,184  | 11,530  | 11    |
| 12    | 32,909  | 28,300  | 26,217  | 24,054  | 23,337  | 22,742  | 21,785  | 21,026  | 18,549  | 16,989  | 15,812  | 14,845  | 14,011  | 13,266  | 12,584  | 12    |
| 13    | 34,528  | 29,819  | 27,688  | 25,472  | 24,736  | 24,125  | 23,142  | 22,362  | 19,812  | 18,202  | 16,985  | 15,984  | 15,119  | 14,345  | 13,636  | 13    |
| 14    | 36,123  | 31,319  | 29,141  | 26,873  | 26,119  | 25,493  | 24,485  | 23,685  | 21,064  | 19,406  | 18,151  | 17,117  | 16,222  | 15,421  | 14,685  | 14    |
| 15    | 37,697  | 32,801  | 30,578  | 28,259  | 27,488  | 26,848  | 25,816  | 24,996  | 22,307  | 20,603  | 19,311  | 18,245  | 17,322  | 16,494  | 15,733  | 15    |
| 16    | 39,252  | 34,267  | 32,000  | 29,633  | 28,845  | 28,191  | 27,136  | 26,296  | 23,542  | 21,793  | 20,465  | 19,369  | 18,418  | 17,565  | 16,780  | 16    |
| 17    | 40,790  | 35,718  | 33,409  | 30,995  | 30,191  | 29,523  | 28,445  | 27,587  | 24,769  | 22,977  | 21,615  | 20,489  | 19,511  | 18,633  | 17,824  | 17    |
| 18    | 42,312  | 37,156  | 34,805  | 32,346  | 31,526  | 30,845  | 29,745  | 28,869  | 25,989  | 24,155  | 22,760  | 21,605  | 20,601  | 19,699  | 18,868  | 18    |
| 19    | 43,820  | 38,582  | 36,191  | 33,687  | 32,852  | 32,158  | 31,037  | 30,144  | 27,204  | 25,329  | 23,900  | 22,718  | 21,689  | 20,764  | 19,910  | 19    |
| 20    | 45,315  | 39,997  | 37,566  | 35,020  | 34,170  | 33,462  | 32,321  | 31,410  | 28,412  | 26,498  | 25,038  | 23,828  | 22,775  | 21,826  | 20,951  | 20    |
| 21    | 46,797  | 41,401  | 38,932  | 36,343  | 35,479  | 34,759  | 33,597  | 32,671  | 29,615  | 27,662  | 26,171  | 24,935  | 23,858  | 22,888  | 21,991  | 21    |
| 22    | 48,268  | 42,796  | 40,289  | 37,659  | 36,781  | 36,049  | 34,867  | 33,924  | 30,813  | 28,822  | 27,301  | 26,039  | 24,939  | 23,947  | 23,031  | 22    |
| 23    | 49,728  | 44,181  | 41,638  | 38,968  | 38,076  | 37,332  | 36,131  | 35,172  | 32,007  | 29,979  | 28,429  | 27,141  | 26,018  | 25,006  | 24,069  | 23    |
| 24    | 51,179  | 45,559  | 42,980  | 40,270  | 39,364  | 38,609  | 37,389  | 36,415  | 33,196  | 31,132  | 29,553  | 28,241  | 27,096  | 26,063  | 25,106  | 24    |
| 25    | 52,620  | 46,928  | 44,314  | 41,566  | 40,646  | 39,880  | 38,642  | 37,652  | 34,382  | 32,282  | 30,675  | 29,339  | 28,172  | 27,118  | 26,143  | 25    |
| 26    | 54,052  | 48,290  | 45,642  | 42,856  | 41,923  | 41,146  | 39,889  | 38,885  | 35,563  | 33,429  | 31,795  | 30,435  | 29,246  | 28,173  | 27,179  | 26    |
| 27    | 55,476  | 49,645  | 46,963  | 44,140  | 43,195  | 42,407  | 41,132  | 40,113  | 36,741  | 34,574  | 32,912  | 31,528  | 30,319  | 29,227  | 28,214  | 27    |
| 28    | 56,892  | 50,993  | 48,278  | 45,419  | 44,461  | 43,662  | 42,370  | 41,337  | 37,916  | 35,715  | 34,027  | 32,620  | 31,391  | 30,279  | 29,249  | 28    |
| 29    | 58,301  | 52,336  | 49,588  | 46,693  | 45,722  | 44,913  | 43,604  | 42,557  | 39,087  | 36,854  | 35,139  | 33,711  | 32,461  | 31,331  | 30,283  | 29    |
| 30    | 59,703  | 53,672  | 50,892  | 47,962  | 46,979  | 46,160  | 44,834  | 43,773  | 40,256  | 37,990  | 36,250  | 34,800  | 33,530  | 32,382  | 31,316  | 30    |
| 31    | 61,098  | 55,003  | 52,191  | 49,226  | 48,232  | 47,402  | 46,059  | 44,985  | 41,422  | 39,124  | 37,359  | 35,887  | 34,598  | 33,431  | 32,349  | 31    |
| 32    | 62,487  | 56,328  | 53,486  | 50,487  | 49,480  | 48,641  | 47,282  | 46,194  | 42,585  | 40,256  | 38,466  | 36,973  | 35,665  | 34,480  | 33,381  | 32    |
| 33    | 63,870  | 57,648  | 54,776  | 51,743  | 50,725  | 49,876  | 48,500  | 47,400  | 43,745  | 41,386  | 39,572  | 38,058  | 36,731  | 35,529  | 34,413  | 33    |
| 34    | 65,247  | 58,964  | 56,061  | 52,995  | 51,966  | 51,107  | 49,716  | 48,602  | 44,903  | 42,514  | 40,676  | 39,141  | 37,795  | 36,576  | 35,444  | 34    |
| 35    | 66,619  | 60,275  | 57,342  | 54,244  | 53,203  | 52,335  | 50,928  | 49,802  | 46,059  | 43,640  | 41,778  | 40,223  | 38,859  | 37,623  | 36,475  | 35    |
| 40    | 73,402  | 66,766  | 63,691  | 60,436  | 59,342  | 58,428  | 56,946  | 55,758  | 51,805  | 49,244  | 47,269  | 45,616  | 44,165  | 42,848  | 41,622  | 40    |
| 60    | 99,607  | 91,952  | 88,379  | 84,580  | 83,298  | 82,225  | 80,482  | 79,082  | 74,397  | 71,341  | 68,972  | 66,981  | 65,227  | 63,628  | 62,135  | 60    |
| 80    | 124,839 | 116,321 | 112,329 | 108,069 | 106,629 | 105,422 | 103,459 | 101,879 | 96,578  | 93,106  | 90,405  | 88,130  | 86,120  | 84,284  | 82,566  | 80    |
| 90    | 137,208 | 128,299 | 124,116 | 119,648 | 118,136 | 116,869 | 114,806 | 113,145 | 107,565 | 103,904 | 101,054 | 98,650  | 96,524  | 94,581  | 92,761  | 90    |
| 100   | 149,449 | 140,169 | 135,807 | 131,142 | 129,561 | 128,237 | 126,079 | 124,342 | 118,498 | 114,659 | 111,667 | 109,141 | 106,906 | 104,862 | 102,946 | 100   |
| 120   | 173,617 | 163,648 | 158,950 | 153,918 | 152,211 | 150,780 | 148,447 | 146,567 | 140,233 | 136,062 | 132,806 | 130,055 | 127,616 | 125,383 | 123,289 | 120   |
| 140   | 197,451 | 186,847 | 181,840 | 176,471 | 174,648 | 173,118 | 170,624 | 168,613 | 161,827 | 157,352 | 153,854 | 150,894 | 148,269 | 145,863 | 143,604 | 140   |

**Tabla D.7: VALORES CRÍTICOS DE LA DISTRIBUCIÓN JI CUADRADA**



|              | 0,45    | 0,50    | 0,55    | 0,60    | 0,65    | 0,70    | 0,75    | 0,80    | 0,85    | 0,90    | 0,95    | 0,975   | 0,98    | 0,99    | 0,995   |              |
|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------------|
| <b>g.d.l</b> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | <b>g.d.l</b> |
| 1            | 0,571   | 0,455   | 0,357   | 0,275   | 0,206   | 0,148   | 0,102   | 0,064   | 0,036   | 0,016   | 0,004   | 0,001   | 0,001   | 0,000   | 0,000   | 1            |
| 2            | 1,597   | 1,386   | 1,196   | 1,022   | 0,862   | 0,713   | 0,575   | 0,446   | 0,325   | 0,211   | 0,103   | 0,051   | 0,040   | 0,020   | 0,010   | 2            |
| 3            | 2,643   | 2,366   | 2,109   | 1,869   | 1,642   | 1,424   | 1,213   | 1,005   | 0,798   | 0,584   | 0,352   | 0,216   | 0,185   | 0,115   | 0,072   | 3            |
| 4            | 3,687   | 3,357   | 3,047   | 2,753   | 2,470   | 2,195   | 1,923   | 1,649   | 1,366   | 1,064   | 0,711   | 0,484   | 0,429   | 0,297   | 0,207   | 4            |
| 5            | 4,728   | 4,351   | 3,996   | 3,655   | 3,325   | 3,000   | 2,675   | 2,343   | 1,994   | 1,610   | 1,145   | 0,831   | 0,752   | 0,554   | 0,412   | 5            |
| 6            | 5,765   | 5,348   | 4,952   | 4,570   | 4,197   | 3,828   | 3,455   | 3,070   | 2,661   | 2,204   | 1,635   | 1,237   | 1,134   | 0,872   | 0,676   | 6            |
| 7            | 6,800   | 6,346   | 5,913   | 5,493   | 5,082   | 4,671   | 4,255   | 3,822   | 3,358   | 2,833   | 2,167   | 1,690   | 1,564   | 1,239   | 0,989   | 7            |
| 8            | 7,833   | 7,344   | 6,877   | 6,423   | 5,975   | 5,527   | 5,071   | 4,594   | 4,078   | 3,490   | 2,733   | 2,180   | 2,032   | 1,646   | 1,344   | 8            |
| 9            | 8,863   | 8,343   | 7,843   | 7,357   | 6,876   | 6,393   | 5,899   | 5,380   | 4,817   | 4,168   | 3,325   | 2,700   | 2,532   | 2,088   | 1,735   | 9            |
| 10           | 9,892   | 9,342   | 8,812   | 8,295   | 7,783   | 7,267   | 6,737   | 6,179   | 5,570   | 4,865   | 3,940   | 3,247   | 3,059   | 2,558   | 2,156   | 10           |
| 11           | 10,920  | 10,341  | 9,783   | 9,237   | 8,695   | 8,148   | 7,584   | 6,989   | 6,336   | 5,578   | 4,575   | 3,816   | 3,609   | 3,053   | 2,603   | 11           |
| 12           | 11,946  | 11,340  | 10,755  | 10,182  | 9,612   | 9,034   | 8,438   | 7,807   | 7,114   | 6,304   | 5,226   | 4,404   | 4,178   | 3,571   | 3,074   | 12           |
| 13           | 12,972  | 12,340  | 11,729  | 11,129  | 10,532  | 9,926   | 9,299   | 8,634   | 7,901   | 7,042   | 5,892   | 5,009   | 4,765   | 4,107   | 3,565   | 13           |
| 14           | 13,996  | 13,339  | 12,703  | 12,078  | 11,455  | 10,821  | 10,165  | 9,467   | 8,696   | 7,790   | 6,571   | 5,629   | 5,368   | 4,660   | 4,075   | 14           |
| 15           | 15,020  | 14,339  | 13,679  | 13,030  | 12,381  | 11,721  | 11,037  | 10,307  | 9,499   | 8,547   | 7,261   | 6,262   | 5,985   | 5,229   | 4,601   | 15           |
| 16           | 16,042  | 15,338  | 14,655  | 13,983  | 13,310  | 12,624  | 11,912  | 11,152  | 10,309  | 9,312   | 7,962   | 6,908   | 6,614   | 5,812   | 5,142   | 16           |
| 17           | 17,065  | 16,338  | 15,633  | 14,937  | 14,241  | 13,531  | 12,792  | 12,002  | 11,125  | 10,085  | 8,672   | 7,564   | 7,255   | 6,408   | 5,697   | 17           |
| 18           | 18,086  | 17,338  | 16,611  | 15,893  | 15,174  | 14,440  | 13,675  | 12,857  | 11,946  | 10,865  | 9,390   | 8,231   | 7,906   | 7,015   | 6,265   | 18           |
| 19           | 19,107  | 18,338  | 17,589  | 16,850  | 16,109  | 15,352  | 14,562  | 13,716  | 12,773  | 11,651  | 10,117  | 8,907   | 8,567   | 7,633   | 6,844   | 19           |
| 20           | 20,127  | 19,337  | 18,569  | 17,809  | 17,046  | 16,266  | 15,452  | 14,578  | 13,604  | 12,443  | 10,851  | 9,591   | 9,237   | 8,260   | 7,434   | 20           |
| 21           | 21,147  | 20,337  | 19,548  | 18,768  | 17,984  | 17,182  | 16,344  | 15,445  | 14,439  | 13,240  | 11,591  | 10,283  | 9,915   | 8,897   | 8,034   | 21           |
| 22           | 22,166  | 21,337  | 20,529  | 19,729  | 18,924  | 18,101  | 17,240  | 16,314  | 15,279  | 14,041  | 12,338  | 10,982  | 10,600  | 9,542   | 8,643   | 22           |
| 23           | 23,185  | 22,337  | 21,510  | 20,690  | 19,866  | 19,021  | 18,137  | 17,187  | 16,122  | 14,848  | 13,091  | 11,689  | 11,293  | 10,196  | 9,260   | 23           |
| 24           | 24,204  | 23,337  | 22,491  | 21,652  | 20,808  | 19,943  | 19,037  | 18,062  | 16,969  | 15,659  | 13,848  | 12,401  | 11,992  | 10,856  | 9,886   | 24           |
| 25           | 25,222  | 24,337  | 23,472  | 22,616  | 21,752  | 20,867  | 19,939  | 18,940  | 17,818  | 16,473  | 14,611  | 13,120  | 12,697  | 11,524  | 10,520  | 25           |
| 26           | 26,240  | 25,336  | 24,454  | 23,579  | 22,697  | 21,792  | 20,843  | 19,820  | 18,671  | 17,292  | 15,379  | 13,844  | 13,409  | 12,198  | 11,160  | 26           |
| 27           | 27,257  | 26,336  | 25,437  | 24,544  | 23,644  | 22,719  | 21,749  | 20,703  | 19,527  | 18,114  | 16,151  | 14,573  | 14,125  | 12,879  | 11,808  | 27           |
| 28           | 28,274  | 27,336  | 26,419  | 25,509  | 24,591  | 23,647  | 22,657  | 21,588  | 20,386  | 18,939  | 16,928  | 15,308  | 14,847  | 13,565  | 12,461  | 28           |
| 29           | 29,291  | 28,336  | 27,402  | 26,475  | 25,539  | 24,577  | 23,567  | 22,475  | 21,247  | 19,768  | 17,708  | 16,047  | 15,574  | 14,256  | 13,121  | 29           |
| 30           | 30,307  | 29,336  | 28,386  | 27,442  | 26,488  | 25,508  | 24,478  | 23,364  | 22,110  | 20,599  | 18,493  | 16,791  | 16,306  | 14,953  | 13,787  | 30           |
| 31           | 31,323  | 30,336  | 29,369  | 28,409  | 27,438  | 26,440  | 25,390  | 24,255  | 22,976  | 21,434  | 19,281  | 17,539  | 17,042  | 15,655  | 14,458  | 31           |
| 32           | 32,339  | 31,336  | 30,353  | 29,376  | 28,389  | 27,373  | 26,304  | 25,148  | 23,844  | 22,271  | 20,072  | 18,291  | 17,783  | 16,362  | 15,134  | 32           |
| 33           | 33,355  | 32,336  | 31,337  | 30,344  | 29,340  | 28,307  | 27,219  | 26,042  | 24,714  | 23,110  | 20,867  | 19,047  | 18,527  | 17,074  | 15,815  | 33           |
| 34           | 34,371  | 33,336  | 32,322  | 31,313  | 30,293  | 29,242  | 28,136  | 26,938  | 25,586  | 23,952  | 21,664  | 19,806  | 19,275  | 17,789  | 16,501  | 34           |
| 35           | 35,386  | 34,336  | 33,306  | 32,282  | 31,246  | 30,178  | 29,054  | 27,836  | 26,460  | 24,797  | 22,465  | 20,569  | 20,027  | 18,509  | 17,192  | 35           |
| 40           | 40,459  | 39,335  | 38,233  | 37,134  | 36,021  | 34,872  | 33,660  | 32,345  | 30,856  | 29,051  | 26,509  | 24,433  | 23,838  | 22,164  | 20,707  | 40           |
| 60           | 60,713  | 59,335  | 57,978  | 56,620  | 55,239  | 53,809  | 52,294  | 50,641  | 48,759  | 46,459  | 43,188  | 40,482  | 39,699  | 37,485  | 35,534  | 60           |
| 80           | 80,927  | 79,334  | 77,763  | 76,188  | 74,583  | 72,915  | 71,145  | 69,207  | 66,994  | 64,278  | 60,391  | 57,153  | 56,213  | 53,540  | 51,172  | 80           |
| 90           | 91,023  | 89,334  | 87,666  | 85,993  | 84,285  | 82,511  | 80,625  | 78,558  | 76,195  | 73,291  | 69,126  | 65,647  | 64,635  | 61,754  | 59,196  | 90           |
| 100          | 101,115 | 99,334  | 97,574  | 95,808  | 94,005  | 92,129  | 90,133  | 87,945  | 85,441  | 82,358  | 77,929  | 74,222  | 73,142  | 70,065  | 67,328  | 100          |
| 120          | 121,285 | 119,334 | 117,404 | 115,465 | 113,483 | 111,419 | 109,220 | 106,806 | 104,037 | 100,624 | 95,705  | 91,573  | 90,367  | 86,923  | 83,852  | 120          |
| 140          | 141,441 | 139,334 | 137,248 | 135,149 | 133,003 | 130,766 | 128,380 | 125,758 | 122,748 | 119,029 | 113,659 | 109,137 | 107,815 | 104,034 | 100,655 | 140          |