

**12. táblázat: Az I. rendű ikerprímek fokozatos szűrésének jellemzői**

| Sor-<br>szám | Prí-<br>mek | Az i. fokozatban                |                                |                                 |  |                                       |  |                                  | Az i. fokozattal bezárólag            |  |
|--------------|-------------|---------------------------------|--------------------------------|---------------------------------|--|---------------------------------------|--|----------------------------------|---------------------------------------|--|
|              |             | szegmens-<br>szám               | szűrendő<br>sorozatok<br>száma | kiszűrt so-<br>rozatok<br>száma | ki nem szűrt<br>sorozatok<br>száma     | arány                                 | sorozat<br>különbség<br>reciproka              | kiszűrt<br>elemek<br>gyakorisága | kiszűrt<br>elemek<br>gyakorisága      | ki nem szűrt<br>elemek<br>gyakorisága                          |
|              |             | $Z_i =$<br>$Z_{i-1}(P_{i-1}-2)$ | $L_i =$<br>$Z_i P_i$           | $K_i =$<br>$2Z_i$               | $\delta_i = Z_{i+1} =$<br>$Z_i(P_i-2)$ | $\delta_i/K_i =$<br>$G_{i\Sigma}/N_i$ | $v_i = 1/\Delta_i =$<br>$1/(\Delta_{i-1} P_i)$ | $N_i =$<br>$K_i v_i$             | $N_{i\Sigma} =$<br>$1 - \delta_i v_i$ | $G_{i\Sigma} = \delta_i v_i =$<br>$G_{(i-1)\Sigma}(P_i-2)/P_i$ |
| 3            | 5           | 1                               | 5                              | 2                               | 3                                      | 1,5                                   | 0,20000  | 0,40000                          | 0,400000                              | 0,600000   |
| 4            | 7           | 3                               | 21                             | 6                               | 15                                     | 2,5                                   | 0,02857  | 0,17143                          | 0,571429                              | 0,428571   |
| 5            | 11          | 15                              | 165                            | 30                              | 135                                    | 4,5                                   | 0,00260  | 0,07792                          | 0,649351                              | 0,350649   |
| 6            | 13          | 135                             | 1755                           | 270                             | 1485                                   | 5,5                                   | 0,00020  | 0,05395                          | 0,703297                              | 0,296703   |
| 7            | 17          | 1485                            | 25245                          | 2970                            | 22275                                  | 7,5                                   | 1,18E-05                                       | 0,03491                          | 0,738203                              | 0,261797   |
| 8            | 19          | 22275                           | 423225                         | 44550                           | 378675                                 | 8,5                                   | 6,19E-07                                       | 0,02756                          | 0,765761                              | 0,234239   |
| 9            | 23          | 378675                          | 8709525                        | 757350                          | 7952175                                | 10,5                                  | 2,69E-08                                       | 0,02037                          | 0,786129                              | 0,213871   |
| 10           | 29          | 7952175                         | 230613075                      | 15904350                        | 214708725                              | 13,5                                  | 9,27E-10                                       | 0,01475                          | 0,800879                              | 0,199121   |
| 11           | 31          | 214708725                       | 6,66E+09                       | 429417450                       | 6,23E+09                               | 14,5                                  | 2,99E-11                                       | 0,01285                          | 0,813725                              | 0,186275   |
| 12           | 37          | 6,23E+09                        | 2,30E+11                       | 1,25E+10                        | 2,18E+11                               | 17,5                                  | 8,09E-13                                       | 0,01007                          | 0,823794                              | 0,176206   |
| 13           | 41          | 2,18E+11                        | 8,94E+12                       | 4,36E+11                        | 8,50E+12                               | 19,5                                  | 1,97E-14                                       | 0,00860                          | 0,832390                              | 0,167610   |
| 14           | 43          | 8,50E+12                        | 3,65E+14                       | 1,70E+13                        | 3,48E+14                               | 20,5                                  | 4,59E-16                                       | 0,00780                          | 0,840186                              | 0,159814   |
| 15           | 47          | 3,48E+14                        | 1,64E+16                       | 6,97E+14                        | 1,57E+16                               | 22,5                                  | 9,76E-18                                       | 0,00680                          | 0,846986                              | 0,153014   |
| 16           | 53          | 1,57E+16                        | 8,31E+17                       | 3,14E+16                        | 8,00E+17                               | 25,5                                  | 1,84E-19                                       | 0,00577                          | 0,852760                              | 0,147240   |
| 17           | 59          | 8,00E+17                        | 4,72E+19                       | 1,60E+18                        | 4,56E+19                               | 28,5                                  | 3,12E-21                                       | 0,00499                          | 0,857751                              | 0,142249   |
| 18           | 61          | 4,56E+19                        | 2,78E+21                       | 9,12E+19                        | 2,69E+21                               | 29,5                                  | 5,12E-23                                       | 0,00466                          | 0,862415                              | 0,137585   |
| 19           | 67          | 2,69E+21                        | 1,80E+23                       | 5,38E+21                        | 1,75E+23                               | 32,5                                  | 7,64E-25                                       | 0,00411                          | 0,866522                              | 0,133478   |
| 20           | 71          | 1,75E+23                        | 1,24E+25                       | 3,50E+23                        | 1,21E+25                               | 34,5                                  | 1,08E-26                                       | 0,00376                          | 0,870282                              | 0,129718   |
| 21           | 73          | 1,21E+25                        | 8,81E+26                       | 2,41E+25                        | 8,56E+26                               | 35,5                                  | 1,47E-28                                       | 0,00355                          | 0,873836                              | 0,126164   |
| 22           | 79          | 8,56E+26                        | 6,77E+28                       | 1,71E+27                        | 6,59E+28                               | 38,5                                  | 1,86E-30                                       | 0,00319                          | 0,877030                              | 0,122970   |
| 23           | 83          | 6,59E+28                        | 5,47E+30                       | 1,32E+29                        | 5,34E+30                               | 40,5                                  | 2,25E-32                                       | 0,00296                          | 0,879993                              | 0,120007   |
| 24           | 89          | 5,34E+30                        | 4,75E+32                       | 1,07E+31                        | 4,65E+32                               | 43,5                                  | 2,52E-34                                       | 0,00270                          | 0,882690                              | 0,117310   |
| 25           | 97          | 4,65E+32                        | 4,51E+34                       | 9,29E+32                        | 4,41E+34                               | 47,5                                  | 2,60E-36                                       | 0,00242                          | 0,885109                              | 0,114891   |
| 26           | 101         | 4,41E+34                        | 4,46E+36                       | 8,83E+34                        | 4,37E+36                               | 49,5                                  | 2,58E-38                                       | 0,00228                          | 0,887384                              | 0,112616   |
| 27           | 103         | 4,37E+36                        | 4,50E+38                       | 8,74E+36                        | 4,41E+38                               | 50,5                                  | 2,50E-40                                       | 0,00219                          | 0,889571                              | 0,110429   |
| 28           | 107         | 4,41E+38                        | 4,72E+40                       | 8,83E+38                        | 4,64E+40                               | 52,5                                  | 2,34E-42                                       | 0,00206                          | 0,891635                              | 0,108365   |
| 29           | 109         | 4,64E+40                        | 5,05E+42                       | 9,27E+40                        | 4,96E+42                               | 53,5                                  | 2,14E-44                                       | 0,00199                          | 0,893623                              | 0,106377   |
| 30           | 113         | 4,96E+42                        | 5,60E+44                       | 9,92E+42                        | 5,51E+44                               | 55,5                                  | 1,90E-46                                       | 0,00188                          | 0,895506                              | 0,104494   |
| 31           | 127         | 5,51E+44                        | 6,99E+46                       | 1,10E+45                        | 6,88E+46                               | 62,5                                  | 1,49E-48                                       | 0,00165                          | 0,897151                              | 0,102849   |
| 32           | 131         | 6,88E+46                        | 9,01E+48                       | 1,38E+47                        | 8,88E+48                               | 64,5                                  | 1,14E-50                                       | 0,00157                          | 0,898722                              | 0,101278   |
| 33           | 137         | 8,88E+48                        | 1,22E+51                       | 1,78E+49                        | 1,20E+51                               | 67,5                                  | 8,33E-53                                       | 0,00148                          | 0,900200                              | 0,099800   |
| 34           | 139         | 1,20E+51                        | 1,67E+53                       | 2,40E+51                        | 1,64E+53                               | 68,5                                  | 5,99E-55                                       | 0,00144                          | 0,901636                              | 0,098364   |
| 35           | 149         | 1,64E+53                        | 2,45E+55                       | 3,28E+53                        | 2,41E+55                               | 73,5                                  | 4,02E-57                                       | 0,00132                          | 0,902956                              | 0,097044   |
| 36           | 151         | 2,41E+55                        | 3,64E+57                       | 4,83E+55                        | 3,60E+57                               | 74,5                                  | 2,66E-59                                       | 0,00129                          | 0,904242                              | 0,095758   |
| 37           | 157         | 3,60E+57                        | 5,65E+59                       | 7,19E+57                        | 5,57E+59                               | 77,5                                  | 1,70E-61                                       | 0,00122                          | 0,905462                              | 0,094538   |
| 38           | 163         | 5,57E+59                        | 9,09E+61                       | 1,11E+60                        | 8,97E+61                               | 80,5                                  | 1,04E-63                                       | 0,00116                          | 0,906622                              | 0,093378   |
| 39           | 167         | 8,97E+61                        | 1,50E+64                       | 1,79E+62                        | 1,48E+64                               | 82,5                                  | 6,23E-66                                       | 0,00112                          | 0,907740                              | 0,092260   |
| 40           | 173         | 1,48E+64                        | 2,56E+66                       | 2,96E+64                        | 2,53E+66                               | 85,5                                  | 3,60E-68                                       | 0,00107                          | 0,908807                              | 0,091193   |
| 55           | 257         | 8,55E+98                        | 2,20E+101                      | 1,71E+99                        | 2,18E+101                              | 127,5                                 | 3,63E-103                                      | 0,00062                          | 0,920793                              | 0,079207   |
| 70           | 349         | 9,00E+135                       | 3,14E+138                      | 1,80E+136                       | 3,12E+138                              | 173,5                                 | 2,29E-140                                      | 0,00041                          | 0,928338                              | 0,071662   |
| 100          | 541         | 9,09E+214                       | 4,92E+217                      | 1,82E+215                       | 4,90E+217                              | 269,5                                 | 1,27E-219                                      | 0,00023                          | 0,937587                              | 0,062413   |
| 130          | 733         | 6,84E+298                       | 5,02E+301                      | 1,37E+299                       | 5,00E+301                              | 365,5                                 | 1,13E-303                                      | 0,00016                          | 0,943255                              | 0,056745   |
| 190          | 1151        |                                 |                                |                                 |  |                                       |  |                                  | 0,950158                              | 0,049842   |
| 250          | 1583        |                                 |                                |                                 |  |                                       |  |                                  | 0,954365                              | 0,045635   |
| 350          | 2357        |                                 |                                |                                 |  |                                       |  |                                  | 0,958818                              | 0,041182   |
| 450          | 3181        |                                 |                                |                                 |  |                                       |  |                                  | 0,961719                              | 0,038281   |
| 550          | 3989        |                                 |                                |                                 |  |                                       |  |                                  | 0,963808                              | 0,036192   |
| 650          | 4831        |                                 |                                |                                 |  |                                       |  |                                  | 0,965418                              | 0,034582   |
| 750          | 5693        |                                 |                                |                                 |  |                                       |  |                                  | 0,966708                              | 0,033292   |
| 850          | 6571        |                                 |                                |                                 |  |                                       |  |                                  | 0,967777                              | 0,032223   |
| 950          | 7499        |                                 |                                |                                 |  |                                       |  |                                  | 0,968683                              | 0,031317   |
| 1100         | 8831        |                                 |                                |                                 |  |                                       |  |                                  | 0,969816                              | 0,030184   |
| 1250         | 10177       |                                 |                                |                                 |  |                                       |  |                                  | 0,970755                              | 0,029245   |
| 1400         | 11657       |                                 |                                |                                 |  |                                       |  |                                  | 0,971550                              | 0,028450   |
| 1600         | 13499       |                                 |                                |                                 |  |                                       |  |                                  | 0,972443                              | 0,027557   |
| 1800         | 15401       |                                 |                                |                                 |  |                                       |  |                                  | 0,973194                              | 0,026806   |
| 2000         | 17389       |                                 |                                |                                 |  |                                       |  |                                  | 0,973841                              | 0,026159   |
| 2250         | 19889       |                                 |                                |                                 |  |                                       |  |                                  | 0,974535                              | 0,025465   |
| 2500         | 22303       |                                 |                                |                                 |  |                                       |  |                                  | 0,975132                              | 0,024868   |
| 2750         | 24859       |                                 |                                |                                 |  |                                       |  |                                  | 0,975655                              | 0,024345   |