

This page is aprt of Ron Knott's [Fibonacci Numbers and the Golden Section](#) web site.

# The Fibonacci numbers

## Contents of this Page

- [The Fibonacci series](#)
- [The first 300 Fibonacci numbers, factorised](#)

.. and, if you want numbers beyond the 300-th:-

- [Fibonacci Numbers 301-500, not factorised](#))
- There is a complete list of all Fibonacci numbers and their factors up to the 1000-th Fibonacci and 1000-th Lucas numbers and partial results beyond that on [Blair Kelly's Factorization pages](#)

## The Fibonacci series

is formed by adding the latest two numbers to get the next one, starting from 0 and 1:

```
0 1 --the series starts like this.
0+1=1 so the series is now
0 1 1
  1+1=2 so the series continues...
0 1 1 2 and the next term is
  1+2=3 so we now have
0 1 1 2 3 and it continues as follows ...
```

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, ...

Try this [Fibonacci Calculator](#), written in JavaScript.

if you are using Microsoft Internet Explorer 4.0 or later OR Netscape Navigator or Communicator version 4.0 or later. Make sure that "scripting" is enabled (on) in your browser preferences.

It can find Fib(2000) exactly - all 418 digits - in about 50 seconds on an Apple Macintosh PowerBook G3 series 266MHz computer.

It can find the first few digits of even higher numbers, instantly, such as the twenty-million<sup>th</sup> Fibonacci number, F(20,000,000) which begins 285439828... and has over **4 million digits!**

The (recurrence) formula for these Fibonacci numbers is:

$$F(0)=0, F(1)=1, F(n)=F(n-1)+F(n-2) \text{ for } n>1.$$

and an explicit formula for F(n) just in terms of n (not previous terms) is given on a later page.

## The first 300 Fibonacci numbers, completely factorised

If a number has no factors except 1 and itself, then it is called a **prime number**.

The factorizations here are produced by Maple with the command

```
with(combinat);
seq(lprint(n,`,`,``,fibonacci(n),`=`,``,ifactor(fibonacci(n))),n=1..100);
```

and then reformatted slightly.

Every Fibonacci number bigger than 1 [except  $F(6)=8$  and  $F(12)=144$ ] has at least one prime factor that is not a factor of any earlier Fibonacci number. Those factors are shown [like this](#). Index numbers that are prime are shown [like this](#).

### The first 300 Fibonacci numbers n : F(n)=factorization

```
0 : 0
1 : 1
2 : 1
3 : 2
4 : 3
5 : 5
6 : 8 = 23
7 : 13
8 : 21 = 3 x 7
9 : 34 = 2 x 17
10 : 55 = 5 x 11
11 : 89
12 : 144 = 24 x 32
13 : 233
14 : 377 = 13 x 29
15 : 610 = 2 x 5 x 61
16 : 987 = 3 x 7 x 47
17 : 1597
18 : 2584 = 23 x 17 x 19
19 : 4181 = 37 x 113
20 : 6765 = 3 x 5 x 11 x 41
21 : 10946 = 2 x 13 x 421
22 : 17711 = 89 x 199
23 : 28657
24 : 46368 = 25 x 32 x 7 x 23
25 : 75025 = 52 x 3001
26 : 121393 = 233 x 521
27 : 196418 = 2 x 17 x 53 x 109
28 : 317811 = 3 x 13 x 29 x 281
29 : 514229
30 : 832040 = 23 x 5 x 11 x 31 x 61
31 : 1346269 = 557 x 2417
32 : 2178309 = 3 x 7 x 47 x 2207
33 : 3524578 = 2 x 89 x 19801
34 : 5702887 = 1597 x 3571
35 : 9227465 = 5 x 13 x 141961
36 : 14930352 = 24 x 33 x 17 x 19 x 107
37 : 24157817 = 73 x 149 x 2221
38 : 39088169 = 37 x 113 x 9349
39 : 63245986 = 2 x 233 x 135721
40 : 102334155 = 3 x 5 x 7 x 11 x 41 x 2161
41 : 165580141 = 2789 x 59369
42 : 267914296 = 23 x 13 x 29 x 211 x 421
43 : 433494437
44 : 701408733 = 3 x 43 x 89 x 199 x 307
45 : 1134903170 = 2 x 5 x 17 x 61 x 109441
46 : 1836311903 = 139 x 461 x 28657
47 : 2971215073
48 : 4807526976 = 26 x 32 x 7 x 23 x 47 x 1103
49 : 7778742049 = 13 x 97 x 6168709
50 : 12586269025 = 52 x 11 x 101 x 151 x 3001
```

51 : 20365011074 = 2 x 1597 x 6376021  
 52 : 32951280099 = 3 x 233 x 521 x 90481  
 53 : 53316291173 = 953 x 55945741  
 54 : 86267571272 = 2<sup>3</sup> x 17 x 19 x 53 x 109 x 5779  
 55 : 139583862445 = 5 x 89 x 661 x 474541  
 56 : 225851433717 = 3 x 7<sup>2</sup> x 13 x 29 x 281 x 14503  
 57 : 365435296162 = 2 x 37 x 113 x 797 x 54833  
 58 : 591286729879 = 59 x 19489 x 514229  
 59 : 956722026041 = 353 x 2710260697  
 60 : 1548008755920 = 2<sup>4</sup> x 3<sup>2</sup> x 5 x 11 x 31 x 41 x 61 x 2521  
 61 : 2504730781961 = 4513 x 555003497  
 62 : 4052739537881 = 557 x 2417 x 3010349  
 63 : 6557470319842 = 2 x 13 x 17 x 421 x 35239681  
 64 : 10610209857723 = 3 x 7 x 47 x 1087 x 2207 x 4481  
 65 : 17167680177565 = 5 x 233 x 14736206161  
 66 : 27777890035288 = 2<sup>3</sup> x 89 x 199 x 9901 x 19801  
 67 : 44945570212853 = 269 x 116849 x 1429913  
 68 : 72723460248141 = 3 x 67 x 1597 x 3571 x 63443  
 69 : 117669030460994 = 2 x 137 x 829 x 18077 x 28657  
 70 : 190392490709135 = 5 x 11 x 13 x 29 x 71 x 911 x 141961  
 71 : 308061521170129 = 6673 x 46165371073  
 72 : 498454011879264 = 2<sup>5</sup> x 3<sup>3</sup> x 7 x 17 x 19 x 23 x 107 x 103681  
 73 : 806515533049393 = 9375829 x 86020717  
 74 : 1304969544928657 = 73 x 149 x 2221 x 54018521  
 75 : 2111485077978050 = 2 x 5<sup>2</sup> x 61 x 3001 x 230686501  
 76 : 3416454622906707 = 3 x 37 x 113 x 9349 x 29134601  
 77 : 5527939700884757 = 13 x 89 x 988681 x 4832521  
 78 : 8944394323791464 = 2<sup>3</sup> x 79 x 233 x 521 x 859 x 135721  
 79 : 14472334024676221 = 157 x 92180471494753  
 80 : 23416728348467685 = 3 x 5 x 7 x 11 x 41 x 47 x 1601 x 2161 x 3041  
 81 : 37889062373143906 = 2 x 17 x 53 x 109 x 2269 x 4373 x 19441  
 82 : 61305790721611591 = 2789 x 59369 x 370248451  
 83 : 99194853094755497  
 84 : 160500643816367088 = 2<sup>4</sup> x 3<sup>2</sup> x 13 x 29 x 83 x 211 x 281 x 421 x 1427  
 85 : 259695496911122585 = 5 x 1597 x 9521 x 3415914041  
 86 : 420196140727489673 = 6709 x 144481 x 433494437  
 87 : 679891637638612258 = 2 x 173 x 514229 x 3821263937  
 88 : 1100087778366101931 = 3 x 7 x 43 x 89 x 199 x 263 x 307 x 881 x 967  
 89 : 1779979416004714189 = 1069 x 1665088321800481  
 90 : 2880067194370816120 = 2<sup>3</sup> x 5 x 11 x 17 x 19 x 31 x 61 x 181 x 541 x 109441  
 91 : 4660046610375530309 = 13<sup>2</sup> x 233 x 741469 x 159607993  
 92 : 7540113804746346429 = 3 x 139 x 461 x 4969 x 28657 x 275449  
 93 : 12200160415121876738 = 2 x 557 x 2417 x 4531100550901  
 94 : 19740274219868223167 = 2971215073 x 6643838879  
 95 : 31940434634990099905 = 5 x 37 x 113 x 761 x 29641 x 67735001  
 96 : 51680708854858323072 = 2<sup>7</sup> x 3<sup>2</sup> x 7 x 23 x 47 x 769 x 1103 x 2207 x 3167  
 97 : 83621143489848422977 = 193 x 389 x 3084989 x 361040209  
 98 : 135301852344706746049 = 13 x 29 x 97 x 6168709 x 599786069  
 99 : 218922995834555169026 = 2 x 17 x 89 x 197 x 19801 x 18546805133  
 100 : 354224848179261915075 = 3 x 5<sup>2</sup> x 11 x 41 x 101 x 151 x 401 x 3001 x 570601  
 101 : 573147844013817084101 = 743519377 x 770857978613  
 102 : 927372692193078999176 = 2<sup>3</sup> x 919 x 1597 x 3469 x 3571 x 6376021  
 103 : 1500520536206896083277 = 519121 x 5644193 x 512119709  
 104 : 2427893228399975082453 = 3 x 7 x 103 x 233 x 521 x 90481 x 102193207  
 105 : 3928413764606871165730 = 2 x 5 x 13 x 61 x 421 x 141961 x 8288823481  
 106 : 6356306993006846248183 = 953 x 55945741 x 119218851371  
 107 : 10284720757613717413913 = 1247833 x 8242065050061761  
 108 : 16641027750620563662096 = 2<sup>4</sup> x 3<sup>4</sup> x 17 x 19 x 53 x 107 x 109 x 5779 x 11128427  
 109 : 26925748508234281076009 = 827728777 x 32529675488417  
 110 : 43566776258854844738105 = 5 x 11<sup>2</sup> x 89 x 199 x 331 x 661 x 39161 x 474541  
 111 : 70492524767089125814114 = 2 x 73 x 149 x 2221 x 1459000305513721

112 : 114059301025943970552219 = 3 x 7<sup>2</sup> x 13 x 29 x 47 x 281 x 14503 x 10745088481  
 113 : 184551825793033096366333 = 677 x 272602401466814027129  
 114 : 298611126818977066918552 = 2<sup>3</sup> x 37 x 113 x 229 x 797 x 9349 x 54833 x 95419  
 115 : 483162952612010163284885 = 5 x 1381 x 28657 x 2441738887963981  
 116 : 781774079430987230203437 = 3 x 59 x 347 x 19489 x 514229 x 1270083883  
 117 : 1264937032042997393488322 = 2 x 17 x 233 x 29717 x 135721 x 39589685693  
 118 : 2046711111473984623691759 = 353 x 709 x 8969 x 336419 x 2710260697  
 119 : 3311648143516982017180081 = 13 x 1597 x 159512939815855788121  
 120 : 5358359254990966640871840 = 2<sup>5</sup> x 3<sup>2</sup> x 5 x 7 x 11 x 23 x 31 x 41 x 61 x 241 x 2161 x 2521 x 20641  
 121 : 8670007398507948658051921 = 89 x 97415813466381445596089  
 122 : 14028366653498915298923761 = 4513 x 555003497 x 5600748293801  
 123 : 22698374052006863956975682 = 2 x 2789 x 59369 x 68541957733949701  
 124 : 36726740705505779255899443 = 3 x 557 x 2417 x 3010349 x 3020733700601  
 125 : 59425114757512643212875125 = 5<sup>3</sup> x 3001 x 158414167964045700001  
 126 : 96151855463018422468774568 = 2<sup>3</sup> x 13 x 17 x 19 x 29 x 211 x 421 x 1009 x 31249 x 35239681  
 127 : 155576970220531065681649693 = 27941 x 5568053048227732210073  
 128 : 251728825683549488150424261 = 3 x 7 x 47 x 127 x 1087 x 2207 x 4481 x 186812208641  
 129 : 407305795904080553832073954 = 2 x 257 x 5417 x 8513 x 39639893 x 433494437  
 130 : 659034621587630041982498215 = 5 x 11 x 131 x 233 x 521 x 2081 x 24571 x 14736206161  
 131 : 1066340417491710595814572169  
 132 : 1725375039079340637797070384 = 2<sup>4</sup> x 3<sup>2</sup> x 43 x 89 x 199 x 307 x 9901 x 19801 x 261399601  
 133 : 2791715456571051233611642553 = 13 x 37 x 113 x 3457 x 42293 x 351301301942501  
 134 : 4517090495650391871408712937 = 269 x 4021 x 116849 x 1429913 x 24994118449  
 135 : 7308805952221443105020355490 = 2 x 5 x 17 x 53 x 61 x 109 x 109441 x 1114769954367361  
 136 : 11825896447871834976429068427 = 3 x 7 x 67 x 1597 x 3571 x 63443 x 23230657239121  
 137 : 19134702400093278081449423917  
 138 : 30960598847965113057878492344 = 2<sup>3</sup> x 137 x 139 x 461 x 691 x 829 x 18077 x 28657 x 1485571  
 139 : 50095301248058391139327916261 = 277 x 2114537501 x 85526722937689093  
 140 : 81055900096023504197206408605 = 3 x 5 x 11 x 13 x 29 x 41 x 71 x 281 x 911 x 141961 x 12317523121  
 141 : 131151201344081895336534324866 = 2 x 108289 x 1435097 x 142017737 x 2971215073  
 142 : 212207101440105399533740733471 = 6673 x 46165371073 x 688846502588399  
 143 : 343358302784187294870275058337 = 89 x 233 x 8581 x 1929584153756850496621  
 144 : 555565404224292694404015791808 = 2<sup>6</sup> x 3<sup>3</sup> x 7 x 17 x 19 x 23 x 47 x 107 x 1103 x 103681 x 10749957121  
 145 : 898923707008479989274290850145 = 5 x 514229 x 349619996930737079890201  
 146 : 1454489111232772683678306641953 = 151549 x 9375829 x 86020717 x 11899937029  
 147 : 2353412818241252672952597492098 = 2 x 13 x 97 x 293 x 421 x 3529 x 6168709 x 347502052673  
 148 : 3807901929474025356630904134051 = 3 x 73 x 149 x 2221 x 11987 x 54018521 x 81143477963  
 149 : 6161314747715278029583501626149 = 110557 x 162709 x 4000949 x 85607646594577  
 150 : 9969216677189303386214405760200 = 2<sup>3</sup> x 5<sup>2</sup> x 11 x 31 x 61 x 101 x 151 x 3001 x 12301 x 18451 x 230686501  
 151 : 16130531424904581415797907386349 = 5737 x 2811666624525811646469915877  
 152 : 26099748102093884802012313146549 = 3 x 7 x 37 x 113 x 9349 x 29134601 x 1091346396980401  
 153 : 42230279526998466217810220532898 = 2 x 17<sup>2</sup> x 1597 x 6376021 x 7175323114950564593  
 154 : 68330027629092351019822533679447 = 13 x 29 x 89 x 199 x 229769 x 988681 x 4832521 x 9321929  
 155 : 110560307156090817237632754212345 = 5 x 557 x 2417 x 21701 x 12370533881 x 61182778621  
 156 : 178890334785183168257455287891792 = 2<sup>4</sup> x 3<sup>2</sup> x 79 x 233 x 521 x 859 x 90481 x 135721 x 12280217041  
 157 : 289450641941273985495088042104137 = 313 x 11617 x 7636481 x 10424204306491346737  
 158 : 468340976726457153752543329995929 = 157 x 92180471494753 x 32361122672259149  
 159 : 757791618667731139247631372100066 = 2 x 317 x 953 x 55945741 x 97639037 x 229602768949  
 160 : 1226132595394188293000174702095995 = 3 x 5 x 7 x 11 x 41 x 47 x 1601 x 2161 x 2207 x 3041 x 23725145626561  
 161 : 1983924214061919432247806074196061 = 13 x 8693 x 28657 x 612606107755058997065597  
 162 : 3210056809456107725247980776292056 = 2<sup>3</sup> x 17 x 19 x 53 x 109 x 2269 x 3079 x 4373 x 5779 x 19441 x 62650261  
 163 : 5193981023518027157495786850488117 = 977 x 4892609 x 33365519393 x 32566223208133  
 164 : 8404037832974134882743767626780173 = 3 x 163 x 2789 x 59369 x 800483 x 350207569 x 370248451  
 165 : 13598018856492162040239554477268290 = 2 x 5 x 61 x 89 x 661 x 19801 x 86461 x 474541 x 518101 x 900241  
 166 : 22002056689466296922983322104048463 = 35761381 x 6202401259 x 99194853094755497  
 167 : 35600075545958458963222876581316753 = 18104700793 x 1966344318693345608565721  
 168 : 57602132235424755886206198685365216 = 2<sup>5</sup> x 3<sup>2</sup> x 7<sup>2</sup> x 13 x 23 x 29 x 83 x 167 x 211 x 281 x 421 x 1427 x 14503 x 65740583  
 169 : 93202207781383214849429075266681969 = 233 x 337 x 89909 x 104600155609 x 126213229732669  
 170 : 150804340016807970735635273952047185 = 5 x 11 x 1597 x 3571 x 9521 x 1158551 x 12760031 x 3415914041  
 171 : 244006547798191185585064349218729154 = 2 x 17 x 37 x 113 x 797 x 6841 x 54833 x 5741461760879844361  
 172 : 394810887814999156320699623170776339 = 3 x 6709 x 144481 x 433494437 x 313195711516578281

173 : 638817435613190341905763972389505493 = 1639343785721 x 389678749007629271532733  
 174 : 1033628323428189498226463595560281832 = 2<sup>3</sup> x 59 x 173 x 349 x 19489 x 514229 x 947104099 x 3821263937  
 175 : 1672445759041379840132227567949787325 = 5<sup>2</sup> x 13 x 701 x 3001 x 141961 x 17231203730201189308301  
 176 : 2706074082469569338358691163510069157 = 3 x 7 x 43 x 47 x 89 x 199 x 263 x 307 x 881 x 967 x 93058241 x 562418561  
 177 : 4378519841510949178490918731459856482 = 2 x 353 x 2191261 x 805134061 x 1297027681 x 2710260697  
 178 : 7084593923980518516849609894969925639 = 179 x 1069 x 1665088321800481 x 22235502640988369  
 179 : 11463113765491467695340528626429782121 = 21481 x 156089 x 3418816640903898929534613769  
 180 : 18547707689471986212190138521399707760 = 2<sup>4</sup> x 3<sup>3</sup> x 5 x 11 x 17 x 19 x 31 x 41 x 61 x 107 x 181 x 541 x 2521 x 109441 x 10783342081  
 181 : 30010821454963453907530667147829489881 = 8689 x 422453 x 8175789237238547574551461093  
 182 : 48558529144435440119720805669229197641 = 13<sup>2</sup> x 29 x 233 x 521 x 741469 x 159607993 x 689667151970161  
 183 : 78569350599398894027251472817058687522 = 2 x 1097 x 4513 x 555003497 x 14297347971975757800833  
 184 : 127127879743834334146972278486287885163 = 3 x 7 x 139 x 461 x 4969 x 28657 x 253367 x 275449 x 9506372193863  
 185 : 205697230343233228174223751303346572685 = 5 x 73 x 149 x 2221 x 1702945513191305556907097618161  
 186 : 332825110087067562321196029789634457848 = 2<sup>3</sup> x 557 x 2417 x 63799 x 3010349 x 35510749 x 4531100550901  
 187 : 538522340430300790495419781092981030533 = 89 x 373 x 1597 x 10157807305963434099105034917037  
 188 : 871347450517368352816615810882615488381 = 3 x 563 x 5641 x 2971215073 x 6643838879 x 4632894751907  
 189 : 1409869790947669143312035591975596518914 = 2 x 13 x 17 x 53 x 109 x 421 x 38933 x 35239681 x 955921950316735037  
 190 : 2281217241465037496128651402858212007295 = 5 x 11 x 37 x 113 x 191 x 761 x 9349 x 29641 x 41611 x 67735001 x 87382901  
 191 : 3691087032412706639440686994833808526209 = 4870723671313 x 757810806256989128439975793  
 192 : 5972304273877744135569338397692020533504 = 2<sup>8</sup> x 3<sup>2</sup> x 7 x 23 x 47 x 769 x 1087 x 1103 x 2207 x 3167 x 4481 x 11862575248703  
 193 : 9663391306290450775010025392525829059713 = 9465278929 x 1020930432032326933976826008497  
 194 : 15635695580168194910579363790217849593217 = 193 x 389 x 3299 x 3084989 x 361040209 x 56678557502141579  
 195 : 25299086886458645685589389182743678652930 = 2 x 5 x 61 x 233 x 135721 x 14736206161 x 88999250837499877681  
 196 : 40934782466626840596168752972961528246147 = 3 x 13 x 29 x 97 x 281 x 5881 x 6168709 x 599786069 x 61025309469041  
 197 : 66233869353085486281758142155705206899077 = 15761 x 25795969 x 227150265697 x 717185107125886549  
 198 : 107168651819712326877926895128666735145224 = 2<sup>3</sup> x 17 x 19 x 89 x 197 x 199 x 991 x 2179 x 9901 x 19801 x 1513909 x 18546805133  
 199 : 173402521172797813159685037284371942044301 = 397 x 436782169201002048261171378550055269633  
 200 : 280571172992510140037611932413038677189525 = 3 x 5<sup>2</sup> x 7 x 11 x 41 x 101 x 151 x 401 x 2161 x 3001 x 570601 x 9125201 x 5738108801  
 201 : 453973694165307953197296969697410619233826 = 2 x 269 x 5050260704396247169315999021 x 1429913 x 116849  
 202 : 734544867157818093234908902110449296423351 = 809 x 7879 x 743519377 x 770857978613 x 201062946718741  
 203 : 1188518561323126046432205871807859915657177 = 13 x 1217 x 514229 x 56470541 x 2586982700656733994659533  
 204 : 1923063428480944139667114773918309212080528 = 2<sup>4</sup> x 3<sup>2</sup> x 67 x 409 x 919 x 1597 x 3469 x 3571 x 63443 x 6376021 x 66265118449  
 205 : 3111581989804070186099320645726169127737705 = 5 x 821 x 2789 x 59369 x 125598581 x 36448117857891321536401  
 206 : 5034645418285014325766435419644478339818233 = 619 x 1031 x 519121 x 5644193 x 512119709 x 5257480026438961  
 207 : 8146227408089084511865756065370647467555938 = 2 x 17 x 137 x 829 x 18077 x 28657 x 4072353155773627601222196481  
 208 : 13180872826374098837632191485015125807374171 = 3 x 7 x 47 x 103 x 233 x 521 x 3329 x 90481 x 102193207 x 106513889 x 325759201  
 209 : 21327100234463183349497947550385773274930109 = 37 x 89 x 113 x 57314120955051297736679165379998262001  
 210 : 34507973060837282187130139035400899082304280 = 2<sup>3</sup> x 5 x 11 x 13 x 29 x 31 x 61 x 71 x 211 x 421 x 911 x 21211 x 141961 x 767131 x 8288823481  
 211 : 55835073295300465536628086585786672357234389 = 22504837 x 38490197 x 800972881 x 80475423858449593021  
 212 : 90343046356137747723758225621187571439538669 = 3 x 953 x 1483 x 2969 x 55945741 x 119218851371 x 1076012367720403  
 213 : 146178119651438213260386312206974243796773058 = 2 x 1277 x 6673 x 46165371073 x 185790722054921374395775013  
 214 : 236521166007575960984144537828161815236311727 = 1247833 x 47927441 x 479836483312919 x 8242065050061761  
 215 : 382699285659014174244530850035136059033084785 = 5 x 433494437 x 2607553541 x 67712817361580804952011621  
 216 : 619220451666590135228675387863297874269396512 = 2<sup>5</sup> x 3<sup>4</sup> x 7 x 17 x 19 x 23 x 53 x 107 x 109 x 5779 x 6263 x 103681 x 11128427 x 177962167367  
 217 : 1001919737325604309473206237898433933302481297 = 13 x 433 x 557 x 2417 x 44269 x 217221773 x 2191174861 x 6274653314021  
 218 : 1621140188992194444701881625761731807571877809 = 128621 x 788071 x 827728777 x 593985111211 x



32529675488417

219 : 2623059926317798754175087863660165740874359106 = 2 x 123953 x 4139537 x 9375829 x 86020717 x 3169251245945843761

220 : 4244200115309993198876969489421897548446236915 = 3 x 5 x 11<sup>2</sup> x 41 x 43 x 89 x 199 x 307 x 331 x 661 x 39161 x 474541 x 59996854928656801

221 : 6867260041627791953052057353082063289320596021 = 233 x 1597 x 203572412497 x 90657498718024645326392940193

222 : 11111460156937785151929026842503960837766832936 = 2<sup>3</sup> x 73 x 149 x 2221 x 4441 x 146521 x 1121101 x 54018521 x 1459000305513721

223 : 17978720198565577104981084195586024127087428957 = 4013 x 108377 x 251534189 x 164344610046410138896156070813

224 : 29090180355503362256910111038089984964854261893 = 3 x 7<sup>2</sup> x 13 x 29 x 47 x 223 x 281 x 449 x 2207 x 14503 x 10745088481 x 1154149773784223225 : 47068900554068939361891195233676009091941690850 = 2 x 5<sup>2</sup> x 17 x 61 x 3001 x 109441 x 230686501 x 11981661982050957053616001

226 : 76159080909572301618801306271765994056795952743 = 677 x 272602401466814027129 x 412670427844921037470771

227 : 123227981463641240980692501505442003148737643593 = 23609 x 5219534137983025159078847113619467285727377

228 : 19938706237321354259949380777207997205533596336 = 2<sup>4</sup> x 3<sup>2</sup> x 37 x 113 x 227 x 229 x 797 x 9349 x 26449 x 54833 x 95419 x 29134601 x 212067587

229 : 322615043836854783580186309282650000354271239929 = 457 x 2749 x 40487201 x 132605449901 x 47831560297620361798553

230 : 522002106210068326179680117059857997559804836265 = 5 x 11 x 139 x 461 x 1151 x 1381 x 5981 x 28657 x 324301 x 686551 x 2441738887963981

231 : 844617150046923109759866426342507997914076076194 = 2 x 13 x 89 x 421 x 19801 x 988681 x 4832521 x 9164259601748159235188401

232 : 1366619256256991435939546543402365995473880912459 = 3 x 7 x 59 x 347 x 19489 x 299281 x 514229 x 1270083883 x 834428410879506721

233 : 2211236406303914545699412969744873993387956988653 = 139801 x 25047390419633 x 631484089583693149557829547141

234 : 3577855662560905981638959513147239988861837901112 = 2<sup>3</sup> x 17 x 19 x 79 x 233 x 521 x 859 x 29717 x 135721 x 39589685693 x 1052645985555841

235 : 5789092068864820527338372482892113982249794889765 = 5 x 2971215073 x 389678426275593986752662955603693114561

236 : 9366947731425726508977331996039353971111632790877 = 3 x 353 x 709 x 8969 x 336419 x 15247723 x 2710260697 x 100049587197598387

237 : 15156039800290547036315704478931467953361427680642 = 2 x 157 x 1668481 x 40762577 x 92180471494753 x 7698999052751136773

238 : 24522987531716273545293036474970821924473060471519 = 13 x 29 x 239 x 1597 x 3571 x 10711 x 27932732439809 x 159512939815855788121

239 : 39679027332006820581608740953902289877834488152161 = 10037 x 62141 x 2228536579597318057 x 28546908862296149233369

240 : 64202014863723094126901777428873111802307548623680 = 2<sup>6</sup> x 3<sup>2</sup> x 5 x 7 x 11 x 23 x 31 x 41 x 47 x 61 x 241 x 1103 x 1601 x 2161 x 2521 x 3041 x 20641 x 23735900452321

241 : 103881042195729914708510518382775401680142036775841 = 11042621 x 7005329677 x 1342874889289644763267952824739273

242 : 168083057059453008835412295811648513482449585399521 = 89 x 199 x 97415813466381445596089 x 97420733208491869044199

243 : 271964099255182923543922814194423915162591622175362 = 2 x 17 x 53 x 109 x 2269 x 4373 x 19441 x 448607550257 x 16000411124306403070561

244 : 440047156314635932379335110006072428645041207574883 = 3 x 4513 x 19763 x 21291929 x 555003497 x 5600748293801 x 24848660119363

245 : 712011255569818855923257924200496343807632829750245 = 5 x 13 x 97 x 141961 x 6168709 x 128955073914024460192651484843195641

246 : 1152058411884454788302593034206568772452674037325128 = 2<sup>3</sup> x 2789 x 59369 x 4767481 x 370248451 x 7188487771 x 68541957733949701

247 : 1864069667454273644225850958407065116260306867075373 = 37 x 113 x 233 x 409100738617 x 4677306043367904676926312147328153

248 : 3016128079338728432528443992613633888712980904400501 = 3 x 7 x 557 x 743 x 2417 x 467729 x 3010349 x 3020733700601 x 33758740830460183

249 : 4880197746793002076754294951020699004973287771475874 = 2 x 1033043205255409 x 99194853094755497 x

23812215284009787769

250 : 7896325826131730509282738943634332893686268675876375 =  $5^3 \times 11 \times 101 \times 151 \times 251 \times 3001 \times 112128001 \times 28143378001 \times 158414167964045700001$ 251 : 12776523572924732586037033894655031898659556447352249 =  $582416774750273 \times 21937080329465122026187124199656961913$ 

21937080329465122026187124199656961913


252 : 20672849399056463095319772838289364792345825123228624 =  $2^4 \times 3^3 \times 13 \times 17 \times 19 \times 29 \times 83 \times 107 \times 211 \times 281 \times 421 \times 1009 \times 1427 \times 31249 \times 1461601 \times 35239681 \times 764940961$ 253 : 33449372971981195681356806732944396691005381570580873 =  $89 \times 28657 \times 4322114369 \times 2201228236641589 \times 1378497303338047612061$ 254 : 5412222371037658776676579571233761483351206693809497 =  $509 \times 5081 \times 27941 \times 487681 \times 13822681 \times 19954241 \times 5568053048227732210073$ 255 : 87571595343018854458033386304178158174356588264390370 =  $2 \times 5 \times 61 \times 1597 \times 9521 \times 6376021 \times 3415914041 \times 20778644396941 \times 20862774425341$ 256 : 141693817714056513234709965875411919657707794958199867 =  $3 \times 7 \times 47 \times 127 \times 1087 \times 2207 \times 4481 \times 119809 \times 186812208641 \times 4698167634523379875583$ 257 : 229265413057075367692743352179590077832064383222590237 =  $5653 \times 32971978671645905645521 \times 1230026721719313471360714649$ 258 : 370959230771131880927453318055001997489772178180790104 =  $2^3 \times 257 \times 5417 \times 6709 \times 8513 \times 144481 \times 308311 \times 39639893 \times 433494437 \times 761882591401$ 259 : 600224643828207248620196670234592075321836561403380341 =  $13 \times 73 \times 149 \times 1553 \times 2221 \times 404656773793 \times 3041266742295771985148799223649$ 260 : 971183874599339129547649988289594072811608739584170445 =  $3 \times 5 \times 11 \times 41 \times 131 \times 233 \times 521 \times 2081 \times 3121 \times 24571 \times 90481 \times 14736206161 \times 42426476041450801$ 261 : 1571408518427546378167846658524186148133445300987550786 =  $2 \times 17 \times 173 \times 2089 \times 20357 \times 36017 \times 40193 \times 322073 \times 514229 \times 3821263937 \times 6857029027549$ 262 : 2542592393026885507715496646813780220945054040571721231 =  $1049 \times 414988698461 \times 5477332620091 \times 1066340417491710595814572169$ 263 : 4114000911454431885883343305337966369078499341559272017 =  $4733 \times 93629 \times 9283622964639019423529121698442566463089390281$ 264 : 6656593304481317393598839952151746590023553382130993248 =  $2^5 \times 3^2 \times 7 \times 23 \times 43 \times 89 \times 199 \times 263 \times 307 \times 881 \times 967 \times 5281 \times 9901 \times 19801 \times 66529 \times 152204449 \times 261399601$ 265 : 10770594215935749279482183257489712959102052723690265265 =  $5 \times 953 \times 15901 \times 55945741 \times 2741218753681 \times 926918599457468125920827581$ 266 : 17427187520417066673081023209641459549125606105821258513 =  $13 \times 29 \times 37 \times 113 \times 3457 \times 9349 \times 42293 \times 10694421739 \times 2152958650459 \times 351301301942501$ 267 : 28197781736352815952563206467131172508227658829511523778 =  $2 \times 1069 \times 122887425153289 \times 1665088321800481 \times 64455877349703042877309$ 268 : 45624969256769882625644229676772632057353264935332782291 =  $3 \times 269 \times 4021 \times 6163 \times 116849 \times 1429913 \times 24994118449 \times 201912469249 \times 2705622682163$ 269 : 73822750993122698578207436143903804565580923764844306069 =  $5381 \times 2517975182669813 \times 32170944747810641 \times 169360439829648789853$ 270 : 119447720249892581203851665820676436622934188700177088360 =  $2^3 \times 5 \times 11 \times 17 \times 19 \times 31 \times 53 \times 61 \times 109 \times 181 \times 271 \times 541 \times 811 \times 5779 \times 42391 \times 109441 \times 119611 \times 1114769954367361$ 271 : 193270471243015279782059101964580241188515112465021394429 =  $449187076348273 \times 430267212525867121951740619093594938058573$ 272 : 312718191492907860985910767785256677811449301165198482789 =  $3 \times 7 \times 47 \times 67 \times 1597 \times 3571 \times 63443 \times 23230657239121 \times 562627837283291940137654881$ 273 : 505988662735923140767969869749836918999964413630219877218 =  $2 \times 13 \times 13 \times 233 \times 421 \times 135721 \times 640457 \times 741469 \times 159607993 \times 1483547330343905886515273$ 274 : 818706854228831001753880637535093596811413714795418360007 =  $541721291 \times 78982487870939058281 \times 19134702400093278081449423917$ 275 : 1324695516964754142521850507284930515811378128425638237225 =  $5^2 \times 89 \times 661 \times 3001 \times 474541 \times 7239101 \times 15806979101 \times 5527278404454199535821801$ 276 : 2143402371193585144275731144820024112622791843221056597232 =  $2^4 \times 3^2 \times 137 \times 139 \times 461 \times 691 \times 829 \times 4969 \times 16561 \times 18077 \times 28657 \times 162563 \times 275449 \times 1485571 \times 1043766587$ 277 : 3468097888158339286797581652104954628434169971646694834457 =  $505471005740691524853293621 \times 6861121308187330908986328104917$ 278 : 5611500259351924431073312796924978741056961814867751431689 =  $277 \times 30859 \times 253279129 \times 2114537501 \times 14331800109223159 \times 85526722937689093$ 279 : 9079598147510263717870894449029933369491131786514446266146 =  $2 \times 17 \times 557 \times 2417 \times 11717 \times 4531100550901 \times 594960058508093 \times 6279830532252706321$ 280 : 14691098406862188148944207245954912110548093601382197697835 =  $3 \times 5 \times 7^2 \times 11 \times 13 \times 29 \times 41 \times 71 \times 281 \times 911 \times$


2161 x 14503 x 141961 x 12317523121 x 118021448662479038881  
 281 : 23770696554372451866815101694984845480039225387896643963981 = 174221 x 119468273 x 1142059735200417842620494388293215303693455057  
 282 : 38461794961234640015759308940939757590587318989278841661816 = 2<sup>3</sup> x 108289 x 1435097 x 79099591 x 142017737 x 2971215073 x 6643838879 x 139509555271  
 283 : 62232491515607091882574410635924603070626544377175485625797 = 10753 x 825229 x 15791401 x 444111888848805843163235784298630863264881  
 284 : 100694286476841731898333719576864360661213863366454327287613 = 3 x 283 x 569 x 6673 x 2820403 x 9799987 x 35537616083 x 46165371073 x 688846502588399  
 285 : 162926777992448823780908130212788963731840407743629812913410 = 2 x 5 x 37 x 61 x 113 x 761 x 797 x 29641 x 54833 x 67735001 x 956734616715046328502480330601  
 286 : 263621064469290555679241849789653324393054271110084140201023 = 89 x 199 x 233 x 521 x 8581 x 1957099 x 2120119 x 1784714380021 x 1929584153756850496621  
 287 : 426547842461739379460149980002442288124894678853713953114433 = 13 x 2789 x 59369 x 198160071001853267796700692507490184570501064382201  
 288 : 690168906931029935139391829792095612517948949963798093315456 = 2<sup>7</sup> x 3<sup>3</sup> x 7 x 17 x 19 x 23 x 47 x 107 x 769 x 1103 x 2207 x 3167 x 103681 x 10749957121 x 115561578124838522881  
 289 : 1116716749392769314599541809794537900642843628817512046429889 = 577 x 1597 x 1733 x 98837 x 101232653 x 106205194357 x 658078658277725444483848541  
 290 : 1806885656323799249738933639586633513160792578781310139745345 = 5 x 11 x 59 x 19489 x 514229 x 120196353941 x 1322154751061 x 349619996930737079890201  
 291 : 2923602405716568564338475449381171413803636207598822186175234 = 2 x 193 x 389 x 3084989 x 361040209 x 76674415738994499773 x 227993117754975870677  
 292 : 4730488062040367814077409088967804926964428786380132325920579 = 3 x 29201 x 151549 x 9375829 x 86020717 x 11899937029 x 37125857850184727260788881  
 293 : 7654090467756936378415884538348976340768064993978954512095813 = 64390759997 x 118869391634972852522952098964476155238134997314729  
 294 : 12384578529797304192493293627316781267732493780359086838016392 = 2<sup>3</sup> x 13 x 29 x 97 x 211 x 293 x 421 x 3529 x 65269 x 620929 x 6168709 x 8844991 x 599786069 x 347502052673  
 295 : 20038668997554240570909178165665757608500558774338041350112205 = 5 x 353 x 1181 x 35401 x 75521 x 160481 x 737501 x 2710260697 x 11209692506253906608469121  
 296 : 32423247527351544763402471792982538876233052554697128188128597 = 3 x 7 x 73 x 149 x 2221 x 11987 x 10661921 x 54018521 x 81143477963 x 114087288048701953998401  
 297 : 52461916524905785334311649958648296484733611329035169538240802 = 2 x 17 x 53 x 89 x 109 x 197 x 593 x 4157 x 19801 x 1360418597 x 18546805133 x 12369243068750242280033  
 298 : 84885164052257330097714121751630835360966663883732297726369399 = 110557 x 162709 x 952111 x 4000949 x 4434539 x 85607646594577 x 3263039535803245519  
 299 : 137347080577163115432025771710279131845700275212767467264610201 = 233 x 28657 x 20569928772342752084634853420271392820560402848605171521  
 300 : 222232244629420445529739893461909967206666939096499764990979600 = 2<sup>4</sup> x 3<sup>2</sup> x 5<sup>2</sup> x 11 x 31 x 41 x 61 x 101 x 151 x 401 x 601 x 2521 x 3001 x 12301 x 18451 x 570601 x 230686501 x 87129547172401

[There is a complete list of all Fibonacci numbers and their factors up to the 1000-th Fibonacci and 1000-th Lucas numbers and partial results beyond that on [Blair Kelly's site.](#)]

Here is a [Fibonacci Calculator](#) which opens in a separate window. It calculates thousands of Fibonacci numbers exactly and millions upon millions to the first few digits!


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 [A Formula for the Fibonacci numbers](#)



