

Smarandache Factors and Reverse Factors

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Abstract

This document will describe the current status on the search for factors of Smarandache consecutive numbers and their reverse. A complete list up to index 200 will be given, with all known factors. Smarandache numbers are the concatenation of the natural numbers from one up to the given index, and reverse Smarandache numbers are the concatenation of the natural numbers from the given index down to 1.

1 Introduction

As a followup to Ralf Stephan's article in this journal [St], I decided to extend his factorizations to index 200. The Smarandache consecutive sequence, as well as their reverse is described in [Sm]. In this article $Sm11$ denotes 1234567891011 for example, and $Rsm11$ denotes 1110987654321.

Most of the factors that have been found by me and others, have been found by using the elliptic curve method (ECM) [Le], some have been found using the Multiple Polynomial Quadratic Sieve (MPQS) [Si].

All factors and remaining cofactors have been proven prime or composite by means of Elliptic Curve Primality Proving (ECPP) [At], or the Adleman-Pomerance-Rumely test [Ad], which has been simplified in 1984 by Cohen and Lenstra [Co].

2 Software used

The main factoring program used has been **GMP-ECM** by Paul Zimmermann [Zi, Le, Gr]. The first small factors were filtered out quickly by **ECMX**, a program of the **UBASIC** package [Ki, Le].

The factors which were probably prime were then tested with François Morain's ECPP [Mo, At]. Some factors have been proven prime by use of APRT-CLE [Ad] from the UBASIC package [Ki].

All these fine pieces of software are freely available from the internet. The appropriate addresses are enlisted in the references.

3 Progress of calculations

All numbers have been factored using GMP-ECM up to 20 digits. First 25 runs with $B1 = 2000$ were run, and if the factorization wasn't complete, 90 runs with $B1 = 11000$ were run.

Work is in progress to extend this to 25 digits. Some factors have already been tried to 25 digits (300 curves with $B1 = 50000$). For more detail on the progress check the following URL:

<http://www.sci.kun.nl/sigma/Persoonlijk/michaf/ecm/ecmtries.html>
Currently the lowest not-completely factored numbers are Sm63 and Rsm59.

4 Factorization results

The lists presented here are an up to date representation of the factors known so far. When more factors are found they will be added to the list, which can be found on the internet at the following URL:

<http://www.sci.kun.nl/sigma/Persoonlijk/michaf/ecm/>

Most of the factors up to Sm80 and Rsm80 should be credited to Ralf Stephan. (unless otherwise stated). All contributors, together with their email-addresses can be found in tables 1 and 3.

A '*' denotes an uncomplete factorization, pxx denotes a prime of xx digits and cxx denotes a composite number of xx digits.

4.1 Smarandache Factors

Contributors of Smarandache factors		
RB	Robert Backstrom	bobb@atinet.com.au
TC	Tim Charron	tcharron@interlog.com
BD	Bruce Dodson	bad0@lehigh.edu
MF	Micha Fleuren	michaf@sci.kun.nl

AM	Allan MacLeod	MACL-MSO@wpmail.paisley.ac.uk
RS	Ralf Stephan	stephan@tmt.de
EW	Egon Willighagen	egonw@sci.kun.nl
PZ	Paul Zimmermann	zimmerma@loria.fr (LORIA, Nancy, France)

Table 1: Contributors of Smarandache factors

n	Factors of $S_m(n)$
2	$2^2 \cdot 3$
3	$3 \cdot 41$
4	$2 \cdot 617$
5	$3 \cdot 5 \cdot 823$
6	$2^6 \cdot 3 \cdot 643$
7	$127 \cdot 9721$
8	$2 \cdot 3^2 \cdot 47 \cdot 14593$
9	$3^2 \cdot 3607 \cdot 3803$
10	$2 \cdot 5 \cdot 1234567891$
11	$3 \cdot 7 \cdot 13 \cdot 67 \cdot 107 \cdot 630803$
12	$2^3 \cdot 3 \cdot 2437 \cdot 2110805449$
13	$113 \cdot 125693 \cdot 869211457$
14	$2 \cdot 3$
	$p18 : 205761315168520219$
15	$3 \cdot 5$
	$p19 : 8230452606740808761$
16	2^2
	$p10 : 2507191691$
	$p13 : 1231026625769$
17	$3^2 \cdot 47 \cdot 4993$
	$p18 : 584538396786764503$
18	$2 \cdot 3^2 \cdot 97 \cdot 88241$
	$p18 : 801309546900123763$
19	$13 \cdot 43 \cdot 79 \cdot 281 \cdot 1193$
	$p18 : 833929457045867563$
20	$2^5 \cdot 3 \cdot 5 \cdot 323339 \cdot 3347983$
	$p16 : 2375923237887317$
21	$3 \cdot 17 \cdot 37 \cdot 43 \cdot 103 \cdot 131 \cdot 140453$
	$p18 : 802851238177109689$
22	$2 \cdot 7 \cdot 1427 \cdot 3169 \cdot 85829$
<i>continued...</i>	

n	Factors of $S_m(n)$
	$p_{22} : 2271991367799686681549$
23	$3 \cdot 41 \cdot 769$
	$p_{32} : 13052194181136110820214375991629$
24	$2^2 \cdot 3 \cdot 7$
	$p_{18} : 978770977394515241$
	$p_{19} : 1501601205715706321$
25	$5^2 \cdot 15461$
	$p_{11} : 31309647077$
	$p_{25} : 1020138683879280489689401$
26	$2 \cdot 3^4 \cdot 21347 \cdot 2345807$
	$p_{12} : 982658598563$
	$p_{18} : 154870313069150249$
27	$3^3 \cdot 19^2 \cdot 4547 \cdot 68891$
	$p_{32} : 40434918154163992944412000742833$
28	$2^3 \cdot 47 \cdot 409$
	$p_{15} : 416603295903037$
	$p_{27} : 192699737522238137890605091$
29	$3 \cdot 859$
	$p_{20} : 24526282862310130729$
	$p_{26} : 19532994432886141889218213$
30	$2 \cdot 3 \cdot 5 \cdot 13 \cdot 49269439$
	$p_{18} : 370677592383442753$
	$p_{23} : 17333107067824345178861$
31	29
	$p_{10} : 2597152967$
	$p_{42} : 163915283880121143989433769727058554332117$
32	$2^2 \cdot 3 \cdot 7$
	$p_{23} : 45068391478912519182079$
	$p_{30} : 326109637274901966196516045637$
33	$3 \cdot 23 \cdot 269 \cdot 7547$
	$p_{18} : 116620853190351161$
	$p_{31} : 7557237004029029700530634132859$
34	2
	$p_{50} : 6172839455055606570758085909601061116212631364146515661667$
35	$3^2 \cdot 5 \cdot 139 \cdot 151 \cdot 64279903$
	$p_{10} : 4462548227$
	$p_{37} : 4556722495899317991381926119681186927$
36	$2^4 \cdot 3^2 \cdot 103 \cdot 211$
	p_{56}

continued...

<i>n</i>	Factors of $S_m(n)$
37	71 · 12379 · 4616929 <i>p</i> ₅₂
38	2 · 3 <i>p</i> ₂₃ : 86893956354189878775643 <i>p</i> ₄₃ : 2367958875411463048104007458352976869124861
39	3 · 67 · 311 · 1039 <i>p</i> ₂₅ : 6216157781332031799688469 <i>p</i> ₃₆ : 305788363093026251381516836994235539
40	2 ² · 5 · 3169 · 60757 · 579779 <i>p</i> ₁₀ : 4362289433 <i>p</i> ₂₀ : 79501124416220680469 <i>p</i> ₂₆ : 15944694111943672435829023
41	3 · 487 · 493127 · 32002651 <i>p</i> ₅₆
42	2 · 3 · 127 · 421 <i>p</i> ₁₁ : 22555732187 <i>p</i> ₂₅ : 4562371492227327125110177 <i>p</i> ₃₄ : 3739644646350764691998599898592229
43	7 · 17 · 449 <i>p</i> ₇₂
44	2 ³ · 3 ² <i>p</i> ₂₆ : 12797571009458074720816277 <i>p</i> ₅₂
45	3 ² · 5 · 7 · 41 · 727 · 1291 <i>p</i> ₁₃ : 2634831682519 <i>p</i> ₁₈ : 379655178169650473 <i>p</i> ₄₁ : 10181639342830457495311038751840866580037
46	2 · 31 · 103 · 270408101 <i>p</i> ₁₈ : 374332796208406291 <i>p</i> ₂₅ : 3890951821355123413169209 <i>p</i> ₂₈ : 4908543378923330485082351119
47	3 · 4813 · 679751 <i>p</i> ₂₂ : 4626659581180187993501 <i>p</i> ₅₃
48	2 ² · 3 · 179 · 1493 · 1894439 <i>p</i> ₂₉ : 15771940624188426710323588657 <i>p</i> ₄₆ : 1288413105003100659990273192963354903752853409
49	23 · 109 · 3251653 <i>p</i> ₁₀ : 2191196713
<i>continued...</i>	

n	Factors of $S_m(n)$
	$p_{23} : 53481597817014258108937$
50	$p_{47} : 12923219128084505550382930974691083231834648599$ $2 \cdot 3 \cdot 5^2 \cdot 13 \cdot 211 \cdot 20479$ $p_{18} : 160189818494829241$ $p_{20} : 46218039785302111919$ $p_{44} : 19789860528346995527543912534464764790909391$
51	3 $p_{20} : 17708093685609923339$
52	p_{73} 2^7 $p_{17} : 43090793230759613$
53	p_{76} $3^3 \cdot 7^3$ $p_{18} : 127534541853151177$
54	p_{76} $2 \cdot 3^6 \cdot 79 \cdot 389 \cdot 3167 \cdot 13309$ $p_{11} : 69526661707$ $p_{22} : 8786705495566261913717$
55	p_{51} $5 \cdot 768643901$ $p_{15} : 641559846437453$ $p_{22} : 1187847380143694126117$
56	p_{55} $2^2 \cdot 3$ $p_{25} : 4324751743617631024407823$ (BD)
57	p_{77} $3 \cdot 17 \cdot 36769067$ $p_{13} : 2205251248721$ $p_{37} : 2128126623795388466914401931224151279$ (RB)
58	$p_{47} : 14028351843196901173601082244449305344230057319$ $2 \cdot 13$ $p_{31} : 1448595612076564044790098185437$ (BD)
59	p_{75} 3 $p_{18} : 340038104073949513$ $p_{36} : 324621819487091567830636828971096713$ (RB)
60	p_{55} $2^3 \cdot 3 \cdot 5 \cdot 97 \cdot 157$ p_{103}

continued...

n	Factors of $S_m(n)$
61	10386763 $p_{14} : 35280457769357$ p_{92}
62	$2 \cdot 3^2 \cdot 1709 \cdot 329167 \cdot 1830733$ $p_{34} : 9703956232921821226401223348541281(TC)$ p_{64}
63*	3^2 $p_{11} : 17028095263$ c_{105}
64	$2^2 \cdot 7 \cdot 17 \cdot 19 \cdot 197 \cdot 522673$ $p_{19} : 1072389445090071307$ $p_{29} : 20203723083803464811983788589 (PW)$ p_{60}
65*	$3 \cdot 5 \cdot 31 \cdot 83719$ c_{113}
66*	$2 \cdot 3 \cdot 7 \cdot 20143 \cdot 971077$ c_{111}
67	397 $p_{18} : 183783139772372071$ p_{105}
68*	$2^4 \cdot 3 \cdot 23 \cdot 764558869$ $p_{10} : 1811890921$ c_{105}
69	$3 \cdot 13 \cdot 23$ $p_{22} : 8684576204660284317187$ $p_{24} : 281259608597535749175083$ $p_{32} : 15490495288652004091050327089107 (RB)$ $p_{49} : 3637485176043309178386946614318767365372143115591$
70	$2 \cdot 5 \cdot 2411111$ $p_{24} : 109315518091391293936799$ $p_{41} : 11555516101313335177332236222295571524323$ p_{60}
71	$3^2 \cdot 83 \cdot 2281$ $p_{31} : 7484379467407391660418419352839 (AM)$ p_{95}
72	$2^2 \cdot 3^2 \cdot 5119$ $p_{27} : 596176870295201674946617769 (BD)$ p_{103}
73*	37907

continued...

n	Factors of $S_m(n)$
	c132
74	2 · 3 · 7 · 1788313 · 21565573 <i>p</i> 20 : 99014155049267797799 <i>p</i> 25 : 1634187291640507800518363 (PW) <i>p</i> 31 : 1981231397449722872290863561307 <i>p</i> 49 : 2377534541508613492655260491688014802698908815817
75*	3 · 5 ² · 193283
	c133
76	2 ³ <i>p</i> 18 : 828699354354766183 <i>p</i> 27 : 213643895352490047310058981 <i>p</i> 97
77	3 <i>p</i> 24 : 383481022289718079599637 (PW) <i>p</i> 24 : 874911832937988998935021 <i>p</i> 39 : 164811751226239402858361187055939797929 (RB) <i>p</i> 58
78*	2 · 3 · 31 · 185897
	c139
79*	73 · 137 <i>p</i> 20 : 22683534613064519783 <i>p</i> 24 : 132316335833889742191773
	c102
80	2 ² · 3 ³ · 5 · 101 · 10263751 <i>p</i> 25 : 1295331340195453366408489 <i>p</i> 115
81	3 ³ · 509 <i>p</i> 30 : 152873624211113444108313548197 (AM) <i>p</i> 119
82*	2 · 29 · 4703 · 10091 <i>p</i> 35 : 12295349967251726424104854676730107 (AM) c111
83*	3 · 53 · 503 <i>p</i> 18 : 177918442980303859 (MF) c134
84	2 ⁵ · 3 <i>p</i> 157
85*	5 · 7 ² c158

continued...

n	Factors of $S_m(n)$
86*	$2 \cdot 3 \cdot 23 \cdot 1056149$ c155
87*	$3 \cdot 7 \cdot 231330259$ p10 : 4275444601 (MF) c145
88*	2^2 p14 : 12414068351873 (MF) c153
89*	$3 \cdot 3 \cdot 13 \cdot 31 \cdot 97 \cdot 163060459$ p18 : 789841356493369879 (MF) c137
90*	$2 \cdot 3 \cdot 3 \cdot 5 \cdot 1987 \cdot 179827 \cdot 2166457$ c154
91*	$37 \cdot 607$ p16 : 5713601747802353 (MF) p24 : 100397446615566314002487 (MF) c130
92*	$2^3 \cdot 3 \cdot 75503$ c168
93*	$3 \cdot 73 \cdot 1051$ p10 : 3298142203 (MF) c162
94*	$2 \cdot 12871181$ p11 : 98250285823 (MF) c160
95*	$3 \cdot 5 \cdot 7 \cdot 401$ c176
96	$2 \cdot 2 \cdot 3 \cdot 23 \cdot 60331$ p175
97	13 p183
98*	$2 \cdot 3^2 \cdot 23 \cdot 37 \cdot 199$ p16 : 1495444452918817 (MF) c165
99*	$3^2 \cdot 31601$ p12 : 786576340181 (MF) c171
100*	$2^2 \cdot 5^2 \cdot 7^3 \cdot 8171 \cdot 1065829$ p10 : 2824782749 (AM)

continued...

n	Factors of $S_m(n)$
101*	$p_{20} : 20317177407273276661$ (MF) c149 $3 \cdot 8377$ $p_{21} : 799917088062980754649$ (AM) c169
102	$2 \cdot 3 \cdot 19 \cdot 89 \cdot 3607 \cdot 15887 \cdot 32993$ $p_{10} : 2865523753$ (MF) p172
103*	$131 \cdot 1231$ $p_{16} : 1713675826579469$ (MF) c180
104*	$2^6 \cdot 3 \cdot 59 \cdot 773$ $p_{20} : 19601852982312892289$ (AM) c177
105*	$3 \cdot 5 \cdot 193$ $p_{13} : 6942508281251$ (MF) c190
106*	$2 \cdot 11 \cdot 127 \cdot 827$ c203
107	3^3 $p_{12} : 536288185369$ (MF) p199
108*	$2^2 \cdot 3^3$ $p_{18} : 128451681010379681$ (AM) c196
109*	$7 \cdot 1559 \cdot 78176687$ $p_{20} : 73024355266099724939$ (AM) c187
110	$2 \cdot 3 \cdot 5 \cdot 4517$ $p_{20} : 18443752916913621413$ (AM) p197
111	$3 \cdot 293 \cdot 431 \cdot 230273 \cdot 209071 \cdot 241423723$ $p_{10} : 3182306131$ (MF) $p_{12} : 171974155987$ (MF) $p_{13} : 1532064083461$ (MF) $p_{17} : 59183601887848987$ (MF) $p_{19} : 8526805649394145853$ (AM) $p_{23} : 27151072184008709784271$ (AM) p109

continued...

n	Factors of $S_m(n)$
112	$2^3 \cdot 16619 \cdot 449797 \cdot 894009023$ $p17 : 74225338554790133$ (MF) $p23 : 10021106769497255963093$ (MF) $p169$
113*	$3 \cdot 11 \cdot 13 \cdot 5653 \cdot 1016453 \cdot 16784357$ $p18 : 116507891014281007$ (AM) $p37 : 6844495453726387858061775603297883751$ (AM) $c157$
114*	$2 \cdot 3 \cdot 7 \cdot 178333$ $c227$
115*	$5 \cdot 17 \cdot 19 \cdot 41 \cdot 36606 \cdot 71518987$ $p18 : 283858194594979819$ (AM) $c202$
116*	$2^2 \cdot 3^2 \cdot 2239$ $c235$
117*	$3^2 \cdot 31883$ $p12 : 333699561211$ (MF) $p20 : 28437086452217952631$ (MF) $c206$
118*	$2 \cdot 83$ $p11 : 33352084523$ (MF) $p20 : 20481677004050305811$ (MF) $c214$
119*	$3 \cdot 59 \cdot 101 \cdot 139 \cdot 2801$ $c239$
120*	$2^4 \cdot 3 \cdot 5 \cdot 13 \cdot 16693063$ $c241$
121*	278240783 $c246$
122	$2 \cdot 3 \cdot 23 \cdot 618029123$ $p14 : 31949422933783$ (MF) $p233$
123*	$3 \cdot 7 \cdot 37 \cdot 413923$ $p10 : 1565875469$ (MF) $p16 : 5500432543504219$ (MF) $c227$
124*	$2^2 \cdot 739393$ $p16 : 1958521545734977$ (MF) $c242$

continued...

n	Factors of $S_m(n)$
125*	$3^2 \cdot 5^3 \cdot 4019$ $p_{13} : 7715697265127$ (MF) c_{247}
126	$2 \cdot 3^2 \cdot 29 \cdot 103 \cdot 70271$ $p_{20} : 11513388742821485203$ (MF) p_{241}
127*	$53 \cdot 269 \cdot 4547$ $p_{20} : 56560310643009044407$ (AM) c_{245}
128*	$2^3 \cdot 3 \cdot 7 \cdot 11 \cdot 59 \cdot 215329$ $p_{22} : 8154316249498591416487$ (MF) c_{243}
129*	$3 \cdot 19$ c_{277}
130*	$2 \cdot 5$ $p_{12} : 166817332889$ (MF) c_{269}
131*	$3 \cdot 19 \cdot 83 \cdot 1693$ $p_{11} : 23210501651$ (MF) $p_{12} : 575587270441$ (MF) c_{256}
132*	$2^2 \cdot 3 \cdot 79$ $p_{13} : 2312656324607$ (MF) c_{272}
133*	$p_{19} : 8223519074965787731$ (AM) c_{272}
134*	$2 \cdot 3^3 \cdot 73 \cdot 6173$ $p_{16} : 5527048386371021$ (AM) $p_{28} : 1417349652747970442615118133$ (AM) c_{243}
135*	$3^3 \cdot 5 \cdot 11 \cdot 37 \cdot 647$ $p_{10} : 1480867981$ (MF) $p_{12} : 174496625453$ (MF) $p_{15} : 151994480112757$ (MF) c_{255}
136*	$2^5 \cdot 1259 \cdot 4111$ $p_{13} : 9485286634381$ (MF) $p_{26} : 10151962417972135624157641$ (AM) c_{253}

continued...

n	Factors of $S_m(n)$
137*	$3 \cdot 7^2$ $p_{13} : 7459866979837$ (MF) c_{288}
138*	$2 \cdot 3 \cdot 181 \cdot 78311 \cdot 914569$ $p_{15} : 413202386279227$ (MF) c_{277}
139*	13 $p_{11} : 62814588973$ (MF) $p_{12} : 115754581759$ (MF) $p_{12} : 964458587927$ (MF) $p_{22} : 9196988352200440482601$ (MF) c_{252}
140*	$2^2 \cdot 3 \cdot 5 \cdot 23 \cdot 761 \cdot 1873 \cdot 12841$ $p_{11} : 34690415939$ (MF) $p_{18} : 226556543956403897$ (AM) $p_{23} : 10856300652094466205709$ (AM) c_{248}
141	$3 \cdot 107171$ p_{309}
142*	$2 \cdot 7 \cdot 4523 \cdot 14303 \cdot 76079$ $p_{22} : 2244048237264532856611$ (AM) c_{282}
143*	$3^2 \cdot 859$ c_{317}
144	$2^3 \cdot 3^2 \cdot 6361$ $p_{13} : 6585181700551$ (MF) $p_{14} : 81557411089043$ (MF) $p_{21} : 165684233831183308123$ (MF) p_{271}
145*	$5 \cdot 96151639$ c_{326}
146*	$2 \cdot 3 \cdot 13 \cdot 83$ $p_{12} : 720716898227$ (MF) $p_{19} : 1122016187632880261$ (MF) c_{296}
147*	$3 \cdot 59113$ $p_{22} : 1833894252004152212837$ (AM) $p_{31} : 1519080701040059055565669511153$ (MF) c_{276}

continued...

n	Factors of $S_m(n)$
148*	$2^2 \cdot 197 \cdot 11927 \cdot 17377 \cdot 273131 \cdot 623321$ $p_{13} : 3417425341307$ (AM) $p_{13} : 4614988413949$ (MF) c_{288}
149*	$3 \cdot 103 \cdot 131 \cdot 1399$ c_{331}
150*	$2 \cdot 3 \cdot 5^2 \cdot 11 \cdot 23$ $p_{16} : 2315007810082921$ (MF) $p_{26} : 92477662071402284092009799$ (MF) c_{296}
151*	$7 \cdot 53 \cdot 1801 \cdot 3323$ c_{335}
152*	$2^4 \cdot 3^2 \cdot 131 \cdot 10613$ $p_{20} : 29354379044409991753$ (AM) $p_{22} : 2587833772662908004979$ (MF) c_{298}
153*	$3^2 \cdot 29 \cdot 7237 \cdot 6987053 \cdot 8237263 \cdot 389365981$ c_{322}
154*	$2 \cdot 17 \cdot 19 \cdot 43$ $p_{18} : 444802312089588077$ (MF) $p_{21} : 855286987917657769927$ (EW) c_{311}
155	$3 \cdot 5 \cdot 66500999$ $p_{24} : 223237752082537677918401$ (EW) p_{323}
156*	$2^2 \cdot 3 \cdot 7 \cdot 3307$ c_{354}
157*	$11 \cdot 53 \cdot 492601 \cdot 43169527$ $p_{12} : 645865664923$ (MF) $p_{18} : 125176035875938771$ (MF) c_{318}
158*	$2 \cdot 3 \cdot 17 \cdot 29 \cdot 53854663$ $p_{21} : 164031369541076815133$ (EW) c_{334}
159*	$3 \cdot 71 \cdot 647$ $p_{10} : 3175105177$ (AM) $p_{25} : 1957802969152764074566129$ (EW) c_{330}
160*	$2^3 \cdot 5 \cdot 37 \cdot 130547 \cdot 859933 \cdot 21274133$

continued...

n	Factors of $S_m(n)$
	$p_{27} : 122800249349203273846720291$ (EW) c324
161	$3^4 \cdot 59 \cdot 491 \cdot 81705851$ p360
162*	$2 \cdot 3^5 \cdot 2999$ $p_{21} : 393803780657062026421$ (AM) c351
163*	2381 $p_{11} : 72549525869$ (AM) $p_{12} : 666733067809$ (AM) $p_{25} : 1550529016982764630292633$ (AM) c330
164*	$2^2 \cdot 3$ c383
165*	$3 \cdot 5 \cdot 7 \cdot 13 \cdot 31 \cdot 247007767$ $p_{15} : 490242053931613$ (MF) c359
166	$2 \cdot 89$ $p_{23} : 55566524959746113370037$ (AM) p365
167*	$3 \cdot 3313$ c389
168	$2^7 \cdot 3 \cdot 532709$ p387
169*	$2671 \cdot 5233$ c392
170*	$2 \cdot 3^2 \cdot 5 \cdot 7 \cdot 701$ $p_{14} : 73406007054077$ (MF) c382
171*	$3^2 \cdot 1237$ $p_{19} : 6017588157881558471$ (AM) c382
172*	$2^2 \cdot 11 \cdot 13 \cdot 37$ c403
173*	$3 \cdot 17 \cdot 53 \cdot 101 \cdot 153 \cdot 11633 \cdot 228673$ c394
174*	$2 \cdot 3 \cdot 59 \cdot 277 \cdot 2522957$ $p_{22} : 2928995151034569627547$ (AM) c381

continued...

n	Factors of $S_m(n)$
175*	5^2 $p_{13} : 2606426254567$ (MF) c_{403}
176*	$2^3 \cdot 3 \cdot 19 \cdot 1051$ $p_{19} : 1031835687651103571$ (AM) c_{396}
177*	$3 \cdot 109 \cdot 153277 \cdot 6690569$ $p_{11} : 32545700623$ (MF) $p_{16} : 2984807754776597$ (MF) c_{382}
178	2 $p_{13} : 3144036216187$ (MF) $p_{17} : 11409535046513339$ (MF) p_{397}
179*	$3^2 \cdot 7 \cdot 11 \cdot 359$ c_{423}
180*	$2^2 \cdot 3^2 \cdot 5 \cdot 43 \cdot 89 \cdot 7121$ c_{422}
181*	$31 \cdot 197 \cdot 70999$ $p_{20} : 46096011552749697739$ (AM) c_{406}
182*	$2 \cdot 3 \cdot 123529391$ c_{429}
183*	$3 \cdot 29 \cdot 661 \cdot 1723$ $p_{16} : 3346484052265661$ (AM) c_{417}
184*	$2^4 \cdot 7 \cdot 59 \cdot 191 \cdot 1093 \cdot 1223$ $p_{11} : 22521973429$ (MF) $p_{17} : 15219125459582087$ (MF) $p_{18} : 158906425126963139$ (MF) $p_{19} : 2513521443592870099$ (MF) c_{369}
185*	$3 \cdot 5 \cdot 94050577$ $p_{13} : 4716042857821$ (MF) $p_{16} : 3479131875325867$ (MF) c_{409}
186*	$2 \cdot 3 \cdot 1201$ $p_{21} : 574850252802945786301$ (MF) c_{425}

continued...

n	Factors of $Sm(n)$
187*	349 · 506442073 c442
188*	$2^2 \cdot 3^3$ c454
189*	$3^3 \cdot 47 \cdot 1515169$ p10 : 1550882611 (MF) p10 : 1687056803 (MF) p21 : 348528133548561476953 (AM) c410
190	2 · 5 · 379 p23 : 46645758388308293907739 (AM) p435
191*	3 · 13 · 5233 p12 : 164130096629 (MF) p20 : 13806214882775315521 (MF) c429
192*	$2^3 \cdot 3 \cdot 29 \cdot 41$ c463
193*	7 · 419 c467
194*	2 · 3 · 11 · 31 · 491 · 34188439 p14 : 28739332991401 (MF) p16 : 8203347603076921 (MF) p19 : 1507421050431503839 (MF) p20 : 22805873052490568609 (MF) p21 : 168560953170124281211 (MF) c373
195*	3 · 5 · 397 · 21728563 · 300856949 · 554551531 p10 : 8174619091 (MF) c438
196	$2^2 \cdot 17 \cdot 73 \cdot 79$ p10 : 3834513037 (MF) p465
197*	$3^2 \cdot 37 \cdot 6277$ p16 : 1368971104990459 (MF) c461
198*	$2 \cdot 3^2 \cdot 7^2 \cdot 13$ c482
199*	151

continued...

n	Factors of $Sm(n)$
200*	c487 $2^5 \cdot 3 \cdot 5^2$ c488

Table 2: Factorizations of $Sm(n)$, $1 < n \leq 200$

4.2 Reverse Smarandache Factors

Contributors of Reverse Smarandache factors		
RB	Robert Backstrom	bobb@atinet.com.au
BD	Bruce Dodson	bad0@lehigh.edu
MF	Micha Fleuren	michaf@sci.kun.nl
AM	Allan MacLeod	MACL-MSO@wpmail.paisley.ac.uk
RS	Ralf Stephan	stephan@tmt.destephan@tmt.de
PZ	Paul Zimmermann	Paul.Zimmermann@loria.fr
<i>continued...</i>		

Table 3: Contributors of Reverse Smarandache factors

n	Factors of $Rsm(n)$
2	3.7
3	3.107
4	29.149
5	3.19.953
6	3.218107
7	19.402859
8	$3^2 \cdot 1997 \cdot 4877$
9	$3^2 \cdot 17^2 \cdot 379721$
10	7.28843.54421
11	3
	$p_{12} : 370329218107$
12	3.7
	$p_{13} : 5767189888301$
13	17.3243967.237927839
14	3.11.24769177
	$p_{10} : 1728836281$
15	3.13.19 ² .79
<i>continued...</i>	

<i>n</i>	Factors Rsm(<i>n</i>)
	<i>p</i> 15 : 136133374970881
16	23.233.2531
	<i>p</i> 16 : 1190788477118549
17	3 ² .13.17929.25411.47543.677181889
18	3 ² .11 ² .19.23.281.397.8577529.399048049
19	17.19
	<i>p</i> 13 : 1462095938449
	<i>p</i> 14 : 40617114482123
20	3.89.317.37889
	<i>p</i> 21 : 629639170774346584751
21	3.37
	<i>p</i> 12 : 732962679433
	<i>p</i> 19 : 2605975408790409767
22	13.137.178489
	<i>p</i> 13 : 1068857874509
	<i>p</i> 14 : 65372140114441
23	3.7.191
	<i>p</i> 32 : 578960862423763687712072079528211
24	3.107.457.57527
	<i>p</i> 28 : 28714434377387227047074286559
25	11.31.59.158820811.410201377
	<i>p</i> 20 : 19258319708850480997
26	3 ³ .929.1753.2503.4049.11171
	<i>p</i> 24 : 527360168663641090261567
27	3 ⁵ .83
	<i>p</i> 10 : 3216341629
	<i>p</i> 13 : 7350476679347
	<i>p</i> 18 : 571747168838911343
28	23.193.3061
	<i>p</i> 19 : 2150553615963932561
	<i>p</i> 21 : 967536566438740710859
29	3.11.709.105971.2901761
	<i>p</i> 10 : 1004030749
	<i>p</i> 24 : 405373772791370720522747
30	3.73.79.18041.24019.32749
	<i>p</i> 10 : 5882899163
	<i>p</i> 24 : 209731482181889469325577
31	7.30331061
	<i>p</i> 45 : 147434568678270777660714676905519165947320523
<i>continued...</i>	

<i>n</i>	Factors Rsm(<i>n</i>)
32	3.17.1231.28409 p12 : 103168496413 p35 : 17560884933793586444909640307424273
33	3.7.7349 p10 : 9087576403 p42 : 237602044832357211422193379947758321446883
34	89.488401.2480227.63292783.254189857 p10 : 3397595519 p19 : 5826028611726606163
35	3 ² .881.1559.755173.7558043 p10 : 1341824123 p16 : 4898857788363449 p16 : 7620732563980787
36	3 ² .11 ² .971 p13 : 1114060688051 p22 : 1110675649582997517457 p24 : 277844768201513190628337
37	29.2549993 p20 : 39692035358805460481 p38 : 12729390074866695790994160335919964253
38	3.9833 p63
39	3.19.73.709.66877 p58
40	11.41.199 p27 : 537093776870934671843838337 p39 : 837983319570695890931247363677891299117
41	3.29.41.89.3506939 p14 : 18697991901857 p20 : 59610008384758528597 p28 : 3336615596121104783654504257
42	3.13249.14159.25073 p10 : 6372186599 p52
43	52433 p20 : 73638227044684393717 p53
44	3 ² .7.3067.114883.245653 p23 : 65711907088437660760939

continued...

<i>n</i>	Factors Rsm(<i>n</i>)
45	<i>p</i> 41 : 12400566709419342558189822382901899879241 3 ² .23.167.15859.25578743 <i>p</i> 65
46	23.35801 <i>p</i> 12 : 543124946137 <i>p</i> 23 : 45223810713458070167393 <i>p</i> 43 : 2296875006922250004364885782761014060363847
47	3.11.31.59 <i>p</i> 16 : 1102254985918193 <i>p</i> 28 : 4808421217563961987019820401 <i>p</i> 38 : 14837375734178761287247720129329493021
48	3.151.457.990013 <i>p</i> 15 : 246201595862687 <i>p</i> 24 : 636339569791857481119613 <i>p</i> 39 : 15096613901856713607801144951616772467
49	71 <i>p</i> 10 : 9777943361 <i>p</i> 77
50	3.157.3307 <i>p</i> 13 : 3267926640703 <i>p</i> 30 : 771765128032466758284258631297 <i>p</i> 43 : 1285388803256371775298530192200584446319323
51	3.11 <i>p</i> 92
52	7.29.670001 <i>p</i> 12 : 403520574901 <i>p</i> 14 : 70216544961751 <i>p</i> 16 : 1033003489172581 <i>p</i> 47 : 13191839603253798296021585972083396625125257997
53	3 ⁴ .499.673.6287.57653.199236731 <i>p</i> 16 : 1200017544380023 <i>p</i> 28 : 1101541941540576883505692003 <i>p</i> 31 : 2061265130010645250941617446327
54	3 ³ .7 ⁴ .13.1427.632778317 <i>p</i> 11 : 57307460723 <i>p</i> 13 : 7103977527461 <i>p</i> 15 : 617151073326209 <i>p</i> 43 : 2852320009960390860973654975784742937560247
55	357274517.460033621

continued...

<i>n</i>	Factors Rsm(<i>n</i>)
56	<i>p</i> 84 3.13 ² <i>p</i> 14 : 85221254605693
57	<i>p</i> 87 3.41 <i>p</i> 11 : 25251380689
58	<i>p</i> 93 11.2425477 <i>p</i> 15 : 178510299010259 <i>p</i> 18 : 377938364291219561 <i>p</i> 28 : 5465728965823437480371566249 <i>p</i> 40 : 5953809889369952598561290100301076499293
59*	3 <i>c</i> 109
60	3 <i>p</i> 10 : 8522287597 <i>p</i> 101
61	13.373 <i>p</i> 22 : 6399032721246153065183 <i>p</i> 42 : 214955646066967157613788969151925052620751 (RB) <i>p</i> 46 : 9236498149999681623847165427334133265556780913
62	3 ² .11.487.6870011 <i>p</i> 13 : 3921939670009 <i>p</i> 14 : 11729917979119 <i>p</i> 28 : 9383645385096969812494171823 <i>p</i> 50 : 43792191037915584824808714186111429193335785529359
63	3 ² .97.26347 <i>p</i> 24 : 338856918508353449187667 <i>p</i> 86
64	397.653 <i>p</i> 12 : 459162927787 <i>p</i> 14 : 27937903937681 <i>p</i> 24 : 386877715040952336040363 <i>p</i> 65
65*	3.7.23.13219.24371 <i>c</i> 110
66	3.53.83.2857.1154129.9123787 <i>p</i> 103
67*	43

continued...

<i>n</i>	Factors Rsm(<i>n</i>)
	<i>p</i> 11 : 38505359279 <i>c</i> 113
68	3.29.277213.68019179.152806439 <i>p</i> 18 : 295650514394629363 <i>p</i> 20 : 14246700953701310411 <i>p</i> 67
69	3.11.71.167.1481 <i>p</i> 10 : 2326583863 <i>p</i> 23 : 19962002424322006111361 <i>p</i> 89
70	1157237.41847137 <i>p</i> 22 : 8904924382857569546497 <i>p</i> 96
71	3 ² .17.131.16871 <i>p</i> 10 : 1504047269 <i>p</i> 11 : 82122861127 <i>p</i> 19 : 1187275015543580261 <i>p</i> 87
72	3 ² .449.1279 <i>p</i> 129
73	7.11.21352291 <i>p</i> 10 : 1051174717 <i>p</i> 17 : 92584510595404843 <i>p</i> 20 : 33601392386546341921 <i>p</i> 83
74	3.177337 <i>p</i> 10 : 6647068667 <i>p</i> 11 : 31386093419 <i>p</i> 15 : 669035576309897 <i>p</i> 16 : 4313244765554839 <i>p</i> 32 : 67415094145569534144512937880453 (PW) <i>p</i> 51
75	3.7.230849.7341571.24260351 <i>p</i> 10 : 1618133873 <i>p</i> 14 : 19753258488427 <i>p</i> 17 : 46752975870227777 <i>p</i> 28 : 7784620088430169828319398031 (PW) <i>p</i> 53
76*	53

continued...

<i>n</i>	Factors Rsm(<i>n</i>)
77	c142 3.919 <i>p</i> 15 : 571664356244249 <i>p</i> 22 : 6547011663195178496329 (PW) <i>p</i> 27 : 591901089382359628031506373 (BD) <i>p</i> 33 : 335808390273971395786635145251293 (PW) <i>p</i> 46 : 3791725400705852972336277620397793613760330637
78*	3.17.47 <i>p</i> 14 : 17795025122047 c131
79	160591 <i>p</i> 15 : 274591434968167 <i>p</i> 19 : 1050894390053076193 <i>p</i> 112
80*	3 ³ .11.443291.1575307 <i>p</i> 17 : 19851071220406859 c121
81	3 ³ .23 ² .62273.22193.352409 <i>p</i> 15 : 914359181934271 (MF) <i>p</i> 120
82	PRIME! (RS)
83*	3 c157
84*	3.11.47.83.447841.18360053 <i>p</i> 14 : 53294058577163 (MF) c130
85	<i>p</i> 12 : 465619934881 (MF) <i>p</i> 22 : 5013354844603778080337 (AM) <i>p</i> 128
86*	3.7.3761.205111.16080557.16505767 c139
87	3.2423 <i>p</i> 25 : 4433139632126658657934801 (AM) <i>p</i> 30 : 951802198132419645688492825211 (MF) <i>p</i> 107
88*	73.8747 c162
89*	3 ² .19.7052207 c161

continued...

<i>n</i>	Factors Rsm(<i>n</i>)
90*	3 ² .157.257.691 c140
91*	11.29.163.3559.2297.22899893 p15 : 350542343218231 (MF) p25 : 8365221234379371317434883 (MF) c115
92*	3.17.113.376589.3269443.6872137 c153
93*	3.13.69317.14992267 c164
94*	7.593.18307 p11 : 51079607083 (MF) c161
95*	3.11.13.53.157.623541439 c166
96*	3.7.211.14563.2297 c172
97*	1553 c182
98	3 ² .101.401.5741.375373 p173
99*	3 ² .109.41829209 p12 : 174489586693 (MF) c168
100*	13.6779 p11 : 48856332919 (MF) p26 : 41858129936073024200781901 (MF) c150
101*	3 p11 : 16320902651 (MF) p19 : 3845388775716560041 (MF) p33 : 693173763848292948494434792706137 (AM) c132
102*	3.101.103.36749 p11 : 10189033219 (MF) p20 : 23663501701518727831 (AM) p26 : 52648894306108287380398039 (AM) c133
103*	19.29.103.3119.154009291

continued...

<i>n</i>	Factors Rsm(<i>n</i>)
90*	3 ² .157.257.691 c140
91*	11.29.163.3559.2297.22899893 p15 : 350542343218231 (MF) p25 : 8365221234379371317434883 (MF) c115
92*	3.17.113.376589.3269443.6872137 c153
93*	3.13.69317.14992267 c164
94*	7.593.18307 p11 : 51079607083 (MF) c161
95*	3.11.13.53.157.623541439 c166
96*	3.7.211.14563.2297 c172
97*	1553 c182
98	3 ² .101.401.5741.375373 p173
99*	3 ² .109.41829209 p12 : 174489586693 (MF) c168
100*	13.6779 p11 : 48856332919 (MF) p26 : 41858129936073024200781901 (MF) c150
101*	3 p11 : 16320902651 (MF) p19 : 3845388775716560041 (MF) p33 : 693173763848292948494434792706137 (AM) c132
102*	3.101.103.36749 p11 : 10189033219 (MF) p20 : 23663501701518727831 (AM) p26 : 52648894306108287380398039 (AM) c133
103*	19.29.103.3119.154009291

continued...

<i>n</i>	Factors Rsm(<i>n</i>)
104*	<i>p</i> 12 : 329279243129 (MF) <i>p</i> 13 : 1240336674347 (MF) <i>c</i> 161 3.7.60953.1890719 <i>p</i> 11 : 10446899741 (MF) <i>p</i> 15 : 216816630080837 (MF) <i>p</i> 19 : 1614245774588631629 (MF) <i>c</i> 149
105*	3.7.859.6047.63601 <i>c</i> 194
106*	<i>p</i> 22 : 1912037972972539041647 (AM) <i>p</i> 22 : 3052818746214722908609 (AM) <i>c</i> 167
107*	3 ³ .13.4519.114967 <i>p</i> 10 : 1425213859 (MF) <i>p</i> 14 : 17641437858251 (MF) <i>c</i> 179
108	3 ³ .23.457.1373 <i>p</i> 12 : 605434593221 (MF) <i>p</i> 12 : 703136513561 (MF) <i>p</i> 183
109	11.29.31 ² .1709.30345569 <i>p</i> 14 : 42304411918757 (MF) <i>p</i> 189
110*	3.11.19.53.229.24672421 <i>p</i> 24 : 611592384837948878235019 (AM) <i>c</i> 183
111*	3.61.269.470077.143063.544035253 <i>c</i> 200
112*	137 <i>p</i> 12 : 262756224547 (MF) <i>c</i> 214
113*	3.19.45061.111211 <i>c</i> 219
114*	3.19.53.59 <i>c</i> 228
115*	137.509.1720003 <i>c</i> 226
116	3 ² .83.103.156307.176089.21769127

continued...

<i>n</i>	Factors Rsm(<i>n</i>)
117	<i>p</i> 217 3 ²
118	<i>p</i> 242 7.4603
119*	<i>p</i> 241 3.7
120*	<i>c</i> 247 3.73
121*	<i>c</i> 249 31.371177
122*	<i>c</i> 248 3.17
123	<i>p</i> 11 : 91673873887 (MF) <i>c</i> 245 3.1197997
124*	<i>p</i> 11 : 15744706711 (MF) <i>p</i> 244 37.1223
125	<i>c</i> 259 3 ² .59.83
126*	<i>p</i> 10 : 5961006911 (MF) <i>p</i> 13 : 1096598255677 (MF) <i>p</i> 240 3 ² .13.68879.135342173
127*	<i>c</i> 255 97
128*	<i>p</i> 16 : 1385409249340483 (AM) <i>c</i> 255 3.34613.29497667
129*	<i>c</i> 263 3.23.1213.82507
130*	<i>p</i> 12 : 420130412231 (MF) <i>c</i> 257 31.263.86969.642520369
131*	<i>c</i> 264 3.11.4111.852143
	<i>p</i> 12 : 606617222863 (MF) <i>p</i> 23 : 33247682213571703426139 (AM) <i>c</i> 239

continued...

n	Factors Rsm(n)
132	3.7.11.41.43.31259.69317.180307.199313 p17 : 16995472858509251 (MF) p20 : 56602777258539682957 (AM) p226
133	7.13 p20 : 22533511116338912411 (AM) p269
134*	3^3 .37.29004967 p17 : 60164048964096599 (AM) c266
135*	3^3 .211.5393.98563 p12 : 207481965329 (MF) p22 : 6789282931372049267693 (AM) c251
136*	
137*	3.179 p22 : 6796599525965619205571 (AM) c278
138*	3.119611.314087617 c292
139*	
140*	3.317.772477 p15 : 153629260660723 (AM) c289
141*	3.631.65831 c307
142*	859.2377.2909.6521 p14 : 41190901651547 (MF) c291
143	3^2 .93971 p12 : 9053448211979 (MF) p302
144*	3^2 p19 : 5028055908018884749 (MF) c304
145*	57719.2691841 p20 : 45690580335973653419 (MF) c296
146*	3.7^2 .277.19319.55807
<i>continued...</i>	

<i>n</i>	Factors Rsm(<i>n</i>)
	<i>p</i> 13 : 2454423915989 (MF) c304
147*	3.7 ² .19.31.15467623 c321
148*	<i>p</i> 20 : 33825333713396366003 (AM) <i>p</i> 23 : 25082957895838310384953 (AM) c294
149*	3.109.34442413 c329
150*	3.59.257 c337
151*	<i>p</i> 10 : 7134941903 (MF) c335
152	3 ² .13 <i>p</i> 21 : 412891312089439668533 (MF) <i>p</i> 325
153*	3 ² .67793 <i>p</i> 18 : 237333508084627139 (MF) c328
154*	11.53861 <i>p</i> 10 : 1118399729 (MF) c339
155*	3.41.33842293 c347
156*	3.21961 c355
157*	<i>p</i> 10 : 4136915059 (MF) c353
158*	3.31.89209 <i>p</i> 10 : 1379633699 (MF) <i>p</i> 14 : 54957888020501 (MF) c336
159*	3.13.5669.11213.816229087 <i>p</i> 10 : 50611041883 (MF) c340
160*	7.942037.1223207 <i>p</i> 21 : 125729584994875519171 (AM) c339
161*	3 ⁷ .7.37.67.6521.826811.6018499
<i>continued...</i>	

<i>n</i>	Factors Rsm(<i>n</i>)
	<i>p</i> 23 : 77558900444266075256801 (MF) <i>c</i> 328
162*	3 ⁴ .1295113.202557967 <i>c</i> 361
163*	<i>p</i> 16 : 1139924663537993 (MF) <i>p</i> 17 : 17672171439068059 (MF) <i>c</i> 350
164	3.193 <i>p</i> 24 : 105444241520715055381519 (AM) <i>p</i> 358
165*	3 <i>c</i> 386
166*	<i>p</i> 15 : 396444477663149 (MF) <i>p</i> 32 : 15221332593310506150048824812249 (AM) <i>c</i> 344
167*	3.17.373.7346281.8927551.194571659 <i>p</i> 20 : 68277637362521294401 (AM) <i>c</i> 347
168*	3.59.35537.68102449 <i>p</i> 19 : 7766035514845504007 (AM) <i>c</i> 362
169*	
170	3 ² .23. <i>p</i> 16 : 3737994294192383 (MF) <i>p</i> 384
171*	3 ² .37 <i>p</i> 12 : 237089136881 (MF) <i>p</i> 19 : 2153684224509566597 (MF) <i>p</i> 21 : 175530075465216996787 (MF) <i>p</i> 22 : 8105319358780665120301 (MF) <i>c</i> 330
172	17.29.281 <i>p</i> 10 : 4631571401 (MF) <i>p</i> 11 : 31981073881 (MF) <i>p</i> 15 : 119749047957053 (MF) <i>p</i> 368
173*	3.1787 <i>c</i> 407
174*	3.7.269.397.156894809

continued...

<i>n</i>	Factors Rsm(<i>n</i>)
175*	c399 7.11 p10 : 3763462823 (MF) c405
176*	3.11.47.49613 p13 : 2800890701267 (MF) p15 : 315698062297249 (MF) p27 : 880613122533775176075766757 (MF) c358
177	3.73.1753 p14 : 29988562180903 (MF) p404
178	13.47.353.644951.487703.1436731 p12 : 728961984851 (MF) p14 : 34686545199997 (MF) p14 : 36329334000803 (MF) p364
179*	3 ² .23.43 p14 : 50981967790529 (MF) c411
180*	3 ² .29 p17 : 33644294710009721 (MF) c413
181*	325251083 p17 : 57421731284347247 (MF) c410
182*	3.107.5568133 p12 : 139065644033 (MF) c417
183*	3.23.89 c437
184*	23.19531 p15 : 196140464783429 (MF) c424
185*	3.13.919 p11 : 32173266383 (MF) c432
186*	3.23 c448
<i>continued...</i>	

n	Factors $Rsm(n)$
187*	61.83.103.523.3187 p19 : 1018598504636281577 (MF) c423
188*	$3^3 \cdot 7 \cdot 7681 \cdot 65141$ c445
189*	$3^3 \cdot 7 \cdot 2039 \cdot 3823 \cdot 9739 \cdot 212453 \cdot 10586519$ c433
190*	83.107.1871.25346653 c447
191	3.809 p18 : 627089953107590081 (MF) p444
192*	3.2549 c464
193*	47.503.12049 c463
194*	3.179 p22 : 8000103240831609636731 (AM) p23 : 77947886830169946060329 (MF) c426
195*	3.79.8219 c471
196*	19 p16 : 8982588119304797 (AM) c463
197*	$3^2 \cdot 11 \cdot 43 \cdot 11743 \cdot 125201 \cdot 867619$ p11 : 61951529111 (MF) p14 : 27090970290157 (MF) c440
198	$3^2 \cdot 11 \cdot 37 \cdot 2837$ p19 : 1245013373736039779 (MF) p461
199*	103.2377 c484
200*	3.1666421 c485

Table 4: Factorizations of $Rsm(n)$, $1 < n \leq 200$

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The very latest up to date representation of this list can be found at the next URL: <http://www.sci.kun.nl/sigma/Persoonlijk/michaf/ecm/>.

References

- [Ad] L.M. Adleman, C. Pomerance and R.S. Rumely: *On Distinguishing Prime Numbers from Composite Number*, Ann. Math. 117, 173-206 (1983)
- [At] A.O. Atkin and F. Morain: *Elliptic curves and primality proving*, Math. Comp. 60, 399-405 (1993)
- [Co] H. Cohen and A.K. Lenstra: *Primality Testing and Jacobi Sums*, Math. Comp. 42, 297-330 (1984)
- [Gr] T. Granlund: *GNU Multiple Precision Arithmetic Library*, <http://www.matematik.su.se/~tege/gmp/>
- [Ki] Y.Kida: *UBASIC program*, <ftp://rkmath.rikkyo.ac.jp/ubibm/>
- [Le] H.W. Lenstra, Jr: *Factoring integers with elliptic curves*, Annals of Mathematics (2) 126, 649-673 (1987)
- [Mo] F. Morain: *Elliptic Curve Primality Proving*, <http://pauillac.inria.fr/algo/morain/>
- [Si] R.D. Silverman: *The Multiple Polynomial Quadratic Sieve*, Math. Comp. 48, 329-339 (1987)
- [Sm] F. Smarandache: *Only Problems, Not Solutions!*, Xiquan Publ., Phoenix-Chicago, (1993)
- [St] R.W. Stephan: *Factors and primes in two Smarandache sequences*, Smarandache Notion Journal 9, 4-10 (1998)

[Zi] P. Zimmermann: *The ECM-NET Project*,
<http://www.loria.fr/~zimmerma/records/ecmnet.html>