

945
946

f91

3,7,11,13,47,127,149,181, 619,929
(5 sup n - 1)/4 is prime.

3,7,71,127, 271,509
(6 sup n - 1)/5 is prime.

5,13,131,149
(7 sup n - 1)/6 is prime.

2,19,23,317,1031
(10 sup n - 1)/9 is prime.

17,19,73, 139,907
(11 sup n - 1)/10 is prime.

3,5,19,97,109, 317,353
(12 sup n - 1)/11 is prime.

Handwritten scribbles and numbers: 4022, 337, 5808

From cs.purdue.edu!ssw Thu May 30 15:16:29 0500 1991
Received: by gauss; Thu May 30 16:16:37 EDT 1991
Received: by inet.att.com; Thu May 30 16:16 EDT 1991
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id <AA12922@arthur.cs.purdue.edu>; Thu, 30 May 91 15:16:29 -0500
Date: Thu, 30 May 91 15:16:29 -0500
From: ssw@cs.purdue.edu (Samuel S Wagstaff)
Message-Id: <9105302016.AA12922@arthur.cs.purdue.edu>
To: njas@research.att.com
Subject: Sequence # 329 extended
Status: O

Sloane # 329 Euclid's Sequence of Primes

computed by Samuel S. Wagstaff, Jr., in 1990-1991

Define $p_1 = 2$, $P_n =$ Product of p_i from $i=1$ to $i=n$ (for $n \geq 1$),
and $p_{n+1} =$ smallest prime factor of $P_n + 1$ (for $n \geq 1$).

n	p_n	$P_n + 1$
1	2	3 (prime)
2	3	7 (prime)
3	7	43 (prime)
4	43	1807 = 13.139
5	13	23479 = 53.443
6	53	1244335 = 5.248867
7	5	6221671 (prime)
8	6221671	38709183810571 (prime)
9	38709183810571	1498400911280533294827535471 = 139.25621.420743244646304724409

10 139 208277726667994127981027430331
= 2801.2897.489241.119812279.437881957
11 2801 583385912397051552474857832354331
= 11.1009.241139351.217973650939627698919
12 11 6417245036367567077223436155897631
= 17.1949.193681376161759185018665262907
13 17 109093165618248640312798414650259711
= 5471.19940260577270817092450816057441
14 5471 596848709097438311151320126551570873411
= 52662739.11333415626130617914714237072849
15 52662739 31431687789685319348762761330032346946392869991
= 23003.9481141.144119457035843546516309623213989617
16 23003 723023114226131400979589798874734076807875188379971
= 30693651606209.23556112628836625540740261445212918019
17 30693651606209
18 37
19 1741
20 1313797957
21 887
22 71
23 7127
24 109
25 23
26 97
27 159227
28 643679794963466223081509857
29 103
30 1079990819
31 9539
32 3143065813
33 29
34 3847
35 89
36 19
37 577
38 223
39 139703
40 457
41 9649
42 61
43 4357

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id <AA12986@arthur.cs.purdue.edu>; Thu, 30 May 91 15:17:55 -0500
Date: Thu, 30 May 91 15:17:55 -0500
From: ssw@cs.purdue.edu (Samuel S Wagstaff)
Message-Id: <9105302017.AA12986@arthur.cs.purdue.edu>
To: njas@research.att.com
Subject: Sequence #330 corrected and extended
Status: 0

Sloane # 330

Euclid's Sequence of Primes

computed by Samuel S. Wagstaff, Jr., in 1990-1991

Define $p_1 = 2$, $P_n =$ Product of p_i from $i=1$ to $i=n$ (for $n \geq 1$),
and $p_{\{n+1\}} =$ largest prime factor of $P_n + 1$ (for $n \geq 1$).

n	p_n	$P_n + 1$
1	2	3 (prime)
2	3	7 (prime)
3	7	43 (prime)
4	43	1807 = 13.139
5	139	251035 = 5.50207
6	50207	12603664039 = 23.1607.340999
7	340999	4297836833293963 = 23.79.2365347734339
8	2365347734339	10165878616190575459068761119 = 17.127770091783.4680225641471129
9	4680225641471129	
10	1368845206580129	(so the sequence is not monotonically increasing)
11	889340324577880670089824574922371	
12	20766142440959799312827873190033784610984957267051218394040721	
13	3486546133523738294549021453705017008734873145092643149204854821614\$ 266466998637603378972254923344607825545244648001799	
14	largest prime factor (unknown to me at this time) of a 261-digit number.	

This sequence corrects an error in the first edition of your book.

From mipsmath.math.uqam.ca!plouffe Thu May 30 22:20:38 EDT 1991
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id AA16898; Thu, 30 May 91 22:20:39 -0400
From: plouffe@mipsmath.math.uqam.ca (Simon Plouffe)
Message-Id: <9105310220.AA16898@mipsmath>
Subject: the program...
To: njas@research.att.com
Date: Thu, 30 May 91 22:20:38 EDT
X-Mailer: ELM [version 2.2 PL14]
Status: 0

I wanted to ask you what happened to the program , you told me that you where to show it to "McIlroy" ?

A simple idea : What if a given sequence U is the quotient of two others S/T , is it feasible on a on-line medium sized system whitin 1 minute of waiting ?. Perhaps but it would have to be programmed in something else than Maple. I suggest a bc/dc combination, or C but whit a extended precision package.

What is the meaning of having a sequence U such that

$U = a*S + b*T$, whit a, b in $\mathbb{Z} \setminus \{ 0 \}$.

Simon.

From mipsmath.math.uqam.ca!plouffe Fri May 31 16:13:51 EDT 1991