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Two “Most” and five “More Wanted” numbers were factored on Page 81. From the wanted lists mailed with Update 2.C in August, 1998, CWI factored the “Most Wanted” number 2,592+ and Conrad Curry factored the “Most Wanted” number 2,601-. Bob Silverman and CWI factored the “More Wanted” numbers 2,611- and 2,611+. CWI factored the “More Wanted” numbers 2,1174L and 10,196+. All of the six factorizations mentioned so far were done with the Number Field Sieve. The Elliptic Curve Method was used by Paul Zimmermann of ECMNET to factor the “More Wanted” number 6,227-.

New wanted lists will be issued with Update 2.D in a few weeks.

Tables 3±, 5-, 6±, 7±, 11± and 12± have been completed up to the second edition limit. No more tables were added to this list on Page 81. Only seven numbers remain from the higher base tables in the second edition. They include two, one and four numbers from Tables 5+, 10- and 10+, respectively.

CWI means Henk Boender, Stefania Cavallar, Marije Elkenbracht-Huizing, Walter Lioen, Peter Montgomery, Herman te Riele and Dik Winter at the Centrum voor Wiskunde en Informatica in Amsterdam. ECMNET means Paul Zimmermann, Torbjörn Granlund, Michel Quercia, Witold Grabysz, Vilmar Trevisan and many helpers who use Granlund’s GMP-ECM program. The Cabal includes Karen Aardal, Stefania Cavallar, Bruce Dodson, Jeff Gilchrist, Arjen Lenstra, Paul Leyland, Walter Lioen, Joel Marchand, Peter Montgomery, François Morain, Alec Muffett, Brian Murphy, Chris Putnam, Craig Putnam, Herman teRiele and Paul Zimmermann.

There were six new champions for factoring Cunningham numbers on this page. Recall that a champion is one of the best two records in its class. All six new champions on Page 81 were first place when they became champions, but some were soon pushed into second place. The factorization of the C114 cofactor of 2,1294M by Arjen Lenstra and CWI set a new record for GNFS factorization. The factorization of the C117 cofactor of 7,241- by CWI set a new record for GNFS factorization. The factorization of the C170 cofactor of 2,601- by Conrad Curry set a new record for SNFS factorization by difficulty. The factorization of the C211 cofactor of 10,211- by The Cabal set a new record for SNFS factorization by difficulty. The factorization of the C211 cofactor of 10,211- by The Cabal set a new record for SNFS factorization by size. The 93-digit penultimate factor of 10,211- by The Cabal set a new record for penultimate prime factor of a Cunningham number. A list of recent champions and the first holes in each table is given on another sheet.

The first holes done on Page 81 are in # 4295, # 4332, # 4340, and # 4341. The second holes done on Page 81 are in # 4301, # 4328, and # 4342. No third hole was done on Page 81. The only fourth hole done on Page 81 is in # 4337. The fifth holes done on Page 81 are in # 4294 and # 4296.

The smallest new factor reported on Page 81 has 27 digits. See # 4290. The largest number factored on Page 81 has 301 digits. See # 4314.

The factor 81274690703860512587777 of the Fermat number F_{18} was found by Crandall, McIntosh and Tardif.

If your address changes, please tell me.

Keep the factors coming!

Sam Wagstaff