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Six "Most Wanted" numbers and fourteen "More Wanted" numbers were factored on Page 87, all but one by the Number Field Sieve. From the wanted lists mailed with Page 86 on May 31, 2001, Bob Silverman and CWI factored the "Most Wanted" numbers 2,619+, 2,631+ and 2,632+. Torbjörn Granlund and CWI factored the "Most Wanted" number 7,214+. Jens Franke and Thorsten Kleinjung factored the "Most Wanted" number 6,232+. CWI factored the "Most Wanted" number 11,181+.

Granlund and CWI factored the "More Wanted" numbers 6,251−, 6,233+, 6,241+, 7,227−, 12,173−, 12,172+ and 12,173+. CWI factored the "More Wanted" numbers 2,1202L, 2,1222L, 2,1234M, 3,389−, 11,191− and 11,188+. CWI used the Elliptic Curve Method to find a factor of the "More Wanted" number 3,382+. Then Granlund and CWI finished the C127 cofactor by NFS.

New wanted lists will be issued with the third edition, which should be published in a few weeks. The remaining numbers in the old wanted lists are shown on the back of the Champion page, where you will also find a brief "Smaller but Needed" list.

CWI means Henk Boender, Stefania Cavallar, 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.

There was one new champion for factoring Cunningham numbers on this page. Recall that a champion is one of the best two records in its class. The factorization of 2,619+ was a champion (second place) for largest penultimate prime factor. Page 88 already has new champions.

The first holes done on Page 87 are in # 4634, # 4635, # 4643, # 4644, # 4645, # 4647, # 4649, # 4651, # 4652, # 4653, # 4657, # 4658, # 4660, # 4661, # 4662, # 4663, # 4664, # 4667, # 4669, # 4670, # 4671 and # 4672. The second holes done on Page 87 are in # 4659 and # 4665. The third holes done on Page 87 are in # 4646, # 4668 and # 4673. No fourth holes were done on Page 87. The only fifth hole done on Page 87 is in # 4636.

The smallest new factor reported on Page 87 has 37 digits. See # 4654. The largest number factored on Page 87 has 263 digits. See # 4642.

See the URL `http://www.prothsearch.net/fermat.html` for Wilfrid Keller's list of all known Fermat factors. Several new factors were added this summer.

See the URL `http://www.utm.edu/research/primes/largest.html` for Chris Caldwell's list of all of the largest known Mersenne primes.

If your address changes, please tell me.

Keep the factors coming!

Sam Wagstaff