

Department of Computer Sciences
Purdue University
West Lafayette, IN 47907
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Four “Most Wanted” numbers from the wanted lists issued with Page 124 were factored on Page 125. Womack and mersenneforum factored 2,929– by the Special Number Field Sieve. Ryan Propper factored 6,359+, 12,257– and 7,331+, also by SNFS.

Two “More Wanted” numbers from the wanted lists issued with Page 124 were factored on Page 125. Propper factored 2,1846L and 6,361+ by SNFS.

One “Smaller-but-Needed” number was factored on Page 125. NFS@Home and Vang factored 3,725+ by the General Number Field Sieve.

New wanted lists are enclosed.

The Base 12 extensions has just been added to the regular tables.

ECMNET means Paul Zimmermann, Alex Kruppa, Torbjörn Granlund, Michel Quercia, Witold Grabysz, Vilmar Trevisan and many helpers who use the GMP-ECM program of Kruppa and Zimmermann. Mersenneforum is a group with a section interested in factoring. See <http://www.mersenneforum.org>. NFS@Home is a group led by Greg Childers.

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 C218 of 2,1049+ split in # 6174 was a new champion (second place) for the Special Number Field Sieve by SNFS difficulty. A list of recent champions is enclosed.

The first holes factored on Page 125 are in # 6164, # 6169, # 6171, # 6172, # 6176 and # 6177. No second hole was factored on Page 125. The third hole factored on Page 125 is in # 6167 and # 6168. The only fourth hole factored on Page 125 is in # 6159. The fifth hole factored on Page 125 is in # 6161 and # 6162.

The smallest new factor reported on Page 125 has 57 digits. See # 6157. The largest number factored on Page 125 has 298 digits. See # 6175.

See the URL <http://www.prothsearch.net/fermat.html> for Wilfrid Keller’s list of all known Fermat factors. Many new factors were found recently.

No new Mersenne primes have been found since the last page. The current largest known prime is $2^{57885161} - 1$. See the URL <http://primes.utm.edu/primes/> for Chris Caldwell’s database of the largest known primes (updated hourly).

See the URL <http://homes.cerias.purdue.edu/~ssw/cun/index.html> for the online Cunningham book. The full text is available as an ebook at: <http://www.ams.org/publications/ebooks/ebooks>.

Please send me any address changes.

Keep the factors coming!

Sam Wagstaff