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Four “Most Wanted” numbers from the wanted lists issued with Page 144 were factored on Page 145. NFS@Home factored 6,419+, 7,386+, 11,311+ and 11,313–, all by the Special Number Field Sieve.

Two “More Wanted” numbers from the wanted lists issued with Page 144 were factored on Page 145. Wagstaff factored 2,1136+ by the Elliptic Curve Method, yoyo@home found a 78-digit factor of 2,2246L by ECM and Balfour finished the c176 cofactor by the General NFS.

Two “Smaller-but-Needed” numbers from the wanted lists issued with Page 144 were factored on Page 145. NFS@Home factored 6,505– by the GNFS and 12,384+ by the SNFS.

New wanted lists are enclosed.

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. NFS@Home is a group led by Greg Childers. yoyo@home is a distributed group in Germany.

There were no new champions for factoring Cunningham numbers on this page. Recall that a champion is one of the best two records in its class.

The first holes factored on Page 145 are in # 6754, # 6763, # 6775, # 6777, # 6778 and # 6779. The only second hole factored on Page 145 is in # 6770. No third, fourth or fifth hole was factored on Page 145.

The smallest new factor reported on Page 145 has 57 digits. See # 6753. The largest number factored on Page 145 has 382 digits. See # 6780.

See the URL <http://www.prothsearch.com/fermat.html> for a list of all known Fermat factors. Some new factors were found since the last page.

No new Mersenne prime was found since the last page. The current largest known prime is  $2^{82589933} - 1$ . See the URL <http://t5k.org/primes/> for the database of the largest known primes.

See the URL <http://homes.cerias.purdue.edu/~ssw/cun/index.html> for the online Cunningham book.

Please send me any address changes.

Keep the factors coming!

Sam Wagstaff