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Eight “Most Wanted” numbers from the wanted lists issued with Page 136 were factored on Page 137. NFS@Home factored 2,1063+, 2,1072+, 10,313+, 3,659+, 5,449–, 5,449+, 6,404+ and 11,302+, all by the Special Number Field Sieve.

Eight “More Wanted” numbers from the wanted lists issued with Page 136 were factored on Page 137. NFS@Home factored 2,2098L, 2,2102L, 3,661–, 3,662+, 5,452+, 7,373+, 12,293– and 12,293+, all by the SNFS.

No “Smaller-but-Needed” number from the wanted lists issued with Page 136 was factored on Page 137. New wanted lists are enclosed.

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

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 number 12,293+ C303 in # 6537 was the champion (first place) for largest penultimate prime factor. A list of recent champions is enclosed.

The first holes factored on Page 137 are in # 6515, # 6519, # 6520, # 6521, # 6522, # 6524, # 6526, # 6527, # 6528, # 6529, # 6531, # 6532, # 6533, # 6534, # 6537, # 6539 and # 6540. The only second hole factored on Page 137 is in # 6523. The only fourth hole factored on Page 137 is in # 6517. No third or fifth hole was factored on Page 137.

The smallest new factor reported on Page 137 has 51 digits. See # 6516. The largest number factored on Page 137 has 336 digits. See # 6514.

See the URL <http://www.prothsearch.net/fermat.html> for a list of all known Fermat factors. Several 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://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.

Please send me any address changes.

Keep the factors coming!

Sam Wagstaff