Largest (proven) primes: Mersenne Primes, [Spring, 2000]

2nd largest: just under 1 million digits,

 $2^{3021377} - 1$, January 1998

largest: just over 2 million digits, $2^{6972593} - 1$, June 1999. WINNER!

Prize for first million-digit prime \$50K

[**2006 update:** 256669 other Mersenne numbers $2^p - 1$, 3021377 , all composite.]

Grand Challenge: \$100K for first 10 million digit prime 1st possible exponent n larger than 33 million: $(2^{33219278} - 1 > 10^{9,999,999})$