

1086-11-1123 **Claudia A Spiro*** (cspiro@spsu.edu), Southern Polytechnic State University, Mathematics Department, 1100 S. Marietta Parkway, Marietta, GA 30060. *A property of the Number 2013, preliminary Report.* Preliminary report.

The number 2013 has the property that if its prime divisors are arranged in ascending order, and p and q are two of them with $p|q$, then $p-1$ divides $q-1$. We show that if $N(x)$ is the number of positive integers not exceeding x that have this property, then we have

$$N(x) \sim cx/\log x$$

for a positive computable constant c , where $\log x$ is the natural logarithm of x . We apply the argument to more general settings involving the Euler phi-function, the group-counting function, and other problems about chains of primes in arithmetic progressions. (Received September 19, 2012)