### Additional information #1: more on the evolution

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### Table 7a: Data for s ≤ 168, using BPSW-pseudprimality for s ≥ 110. Stage 139 is the last known point where the number of primes decreases. (Interestingly enough, just before that happens, n = 4^p, which is the only known — but certainly not the only — example where n is a multiple of p.) As for the column n^*, see Table 7b below.
The calculation up to the point given above takes about two months with Pari/GP [5] on a single CPU core of a state-of-the-art PC with the following program, which in the given form starts at \( s = 29 \) and keeps track of the numbers as \( a = q_s \) and a memory-friendly vector \( d \) consisting of only the consecutive differences between the numbers of a given stage where \( d_i = 0 \) and, for \( i > 1 \), \( d_i = q_{s+i} - q_{s+i-1} \):

```c
{
a=35084254248391235293716663559065020274899073;
d=[0]; \ \ a and d can also be read in from previously calculated data
s=0;
b=a;
while(b>1,s++;b=prime(s));
i=#d;
gettime();
while(1,
    s++;
    p=prime(s);
    o=a*p;
    c=d;
    e=floor(exp(sqrt(3*s)/2)/7);
    d=vector(e);
    m=i;
i=0;
    for(j=1,m,
        o+=c[j]*p;
        y=vector(p);
        forprime(b=3,p-2,
            r=b-lift(Mod(o,b));
            forstep(l=r,p,b,y[l]=1)
        );
        forprime(b=p+2,floor(p^1.9),
            r=b-lift(Mod(o,b));
            if(r<p,y[r]=1)
        );
        forstep(k=2,p-1,2,
            if(!y[k],
                q=o+k;
                if(ispseudoprime(q),
                    i++;
                    if(i>1,d[i]=q-z,a=q);
                    z=q
                )
            )
        );
    )
g=floor(gettime()/1000);
x="["
; f=floor(g/3600); if(f,x=Str(x,f"h "));
    f=floor(g/60); if(f,x=Str(x,f%60"m "));
    x=Str(x,g%60"s ");
    t=Str("Level ");
    print(t": ",i" possibilities ",x);
    t=Str("p\#Y "t".txt ");
    write(t,"a="a; d=vecextract(d,Str("1.."i)))
}
```

Be sure to set `allocatemem(5*10^7)` or higher when aiming for \( s = 300 \) or beyond.