

## Re: Switching to Linux, now what to buy?

**Source:** <http://linux.derkeiler.com/Newsgroups/comp.os.linux.setup/2005-09/0545.html>

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**Date:** 09/25/05

Date: Sun, 25 Sep 2005 18:12:01 +0200

On Sun, 25 Sep 2005 13:40:42 +0200, Peter T. Breuer <[ptb@oboe.it.uc3m.es](mailto:ptb@oboe.it.uc3m.es)> wrote:

> Enrique Perez-Terron <[enrio@online.no](mailto:enrio@online.no)> wrote:  
>> Actually the original idea when I started "analyzing" the problem  
>> in the post was that I felt I was blocking myself from seeing the  
>> obvious, and I have sometimes managed to force myself over that  
>> barrier by looking hard at the search space definition. I started  
>  
> Yes, that is good. In your first post you got close when you considered  
> generating one set of things from another (AFAIR) and thought about  
> primes  
> or sets of number coprime to an existing set. I had trouble avoiding  
> pointing you either towards or away from that line of thought.  
>  
> Michael also was close in that for some amazing reason he chose to  
> consider euler's phi (which I did not remember at all) but did not  
> notice that the peaks in the phi function WERE the sequence given.  
>  
>> writing with the conviction I was not going to post it, but since  
>> I did not find out much I thought perhaps it could spark off  
>> something in one of the others. It did, but in myself.  
>  
> Well done.  
>  
> I think that trying to think of an irregular monotonic rising series  
> was a good way to go. I had already said that no algebraic expression  
> would give the sequence (but that a computation was possible). Looking  
> at the number of members of the sequence in each integer range might  
> have shown a  $\log/n$  behaviour too.

It is interesting in its own right to see how the human factors play out here.

The reality here was that I was more tuned on the psychology/sociology of intelligence tests and quizzes (is that the correct plural of quiz?), although I was not very clear to myself about what I was doing.

I had at a point an idea that instead of thinking defeatistically that there must be an infinity of solutions with ditto justifications, (I too thought that, independently of the others who said the same) – there would be one dead simple solution. The numbers are pretty low. Certainly a complicated function can "loop back" into the narrow region 1..12 for a sequence of integers 1..6, and run wildy around for other values, but I was very convinced that you were honest when you said there was no trick, no fooling, etc. I would have been extremely surprised otherwise. But a dead simple solution would be one with perhaps two or three steps of computation, and if the elementary computations are drawn from a small set, then an exhaustive search is quite feasible. That motivated me to take a look at the search space, which is what I tried to do in the first post. I had a feeling that I was simply overlooking something, and an analysis could force me to see it.

Toward the end I began criticizing my work, feeling that the sets  $S(n; k)$  as I had designed them did not reflect the nature of such intelligence tests. I did not want a metric of simplicity that was more an artifact of the peculiar recursion–theoretic construction. I could not see clearly how to fix it, and the construction had to some extent exhausted me. So, when I suggested inclusion of knowledge about primes as something the intelligence tester would check for in the test subjects, I was too tired at that moment to even try to figure out what primes could do for me.

I just had this feeling of having rammed my head into the wall – as usual. Only after clicking "send" I felt freed of all that and momentarily motivated to attack again. I looked at the sequence again, and just used a feeling of rythm or something like that. I felt intrigued again by the simplicity of this sequence. The numbers were so low that there was not much room for complexity in them. Again I felt that the search space was small, and I posed that question that I reported earlier.

The whole point of all this long post is that \*feelings\* played such a large role. Just see how often I have to refer to them to explain to myself why I did as I did.

I can even point to a mental process where the joke of the physicist's proof contributed. I have a mental image of this physicist walking across a marsh, stepping on a chain of stepping stones. The stones are the primes, but the physicist thinks they are odd numbers. When he comes to where the number 9 would be, there is no stone, and he plunges into the wet mud. He quickly manages to step on the next stone, the number 11, and pulls his foot up and goes on. I have always felt the number 9 as kind–of a hole in the sequence of primes.

(Higher up where the primes are far more sparse is another story) So, when this sequence here lacks 8, it gave me a vaguely similar

feeling. I just was not able to determine what that feeling was until the work had brought the sequence of primes closer to the surface of conscience.

Before that, I saw the post with Euler's phi, but then I thought it a bit irrelevant because it was too sophisticated. I could not imagine that used in an intelligence test.

When I was young I programmed a computer to find all ways of placing  $N$  queens on an  $N \times N$  chessboard so none of them was in position to take any other. The number of ways varies with  $N$  in a peculiar way. A friend and I tried to find a law for it, but, of course, we had no chance. I can't imagine anyone using that as an intelligence test either.

–Enrique