

Re: Pi to 10 trillion places

Source: <http://sci.tech-archive.net/Archive/sci.math/2006-01/msg04542.html>

- *From:* "Peter Webb" <webbfamily-diespamdie@xxxxxxxxxxxxxxxxxxx>
 - *Date:* Sat, 28 Jan 2006 14:44:00 +1100
-

>> There is no money to fund it. There is no need for it. Where would
>> you
>> put it? How could you check it?
>
> No intrinsic need, indeed. But my understanding is that the driving
> force behind these extended calculations is the need to test new
> hardware. If I run the calculation on new hardware to 2 trillion
> places, and it agrees with the previous 1.2-trillion place record, then
> the chances are very good that there are no hardware bugs.
>

This would have to be the stupidest hardware test I have ever heard of.

Doing add, multiply, shift 2 trillion times tells you only very little more than doing it a million times, and tells you nothing about 90% of your CPU. It would be like testing a new car design by driving it in reverse for 2,000 miles and pretending that it is a comprehensive test.

If you want to test hardware, you exercise every instruction in the hardware set, in as many different combinations and sequences as you can think of, just as if you are testing a car you drive at different speeds on different roads in different conditions. For a CPU this would typically include interrupt handling, multi-threading, super-scalar computations, DMA performance, Bitblt ops (such as MMX) – all the hard things in CPU design, none of which would be tested in a pi calculation.

If you want to check out hardware, devise a decent test. But don't try and bs anybody that calculating pi is any way a reasonable way of verifying CPU operation.

-
- *Follow-Ups:*
 - ◆ *[Re: Pi to 10 trillion places](#)*

Re: Pi to 10 trillion places

◇ *From:* robin . bruce

• **References:**

◆ ***Pi to 10 trillion places***

◇ *From:* robin . bruce

◆ ***Re: Pi to 10 trillion places***

◇ *From:* Boris Uon

◆ ***Re: Pi to 10 trillion places***

◇ *From:* Ronald Bruck

- Prev by Date: ***Re: Minimum of N discrete RV***
- Next by Date: ***Re: Binomial distribution question***
- Previous by thread: ***Re: Pi to 10 trillion places***
- Next by thread: ***Re: Pi to 10 trillion places***
- Index(es):
 - ◆ ***Date***
 - ◆ ***Thread***