Re: Real world and mathematics

Source: http://sci.tech−archive.net/Archive/sci.math/2008−07/msg02705.html

- *From*: "porky_pig_jr@xxxxxxxxxxx" <porky_pig_jr@xxxxxxxxxxx>
- *Date*: Sat, 26 Jul 2008 10:16:03 −0700 (PDT)

On Jul 25, 4:37 pm, Angus Rodgers <twir...@xxxxxxxxxxx> wrote:

> V. I. Arnol'd, What is mathematics?, (MCCME, Moscow), 2002, Russian
>
> So, when you wrote of Arnol'd, ``See his book "What is mathematics".", just what did you mean? I'm puzzled.

I guess that's what I've meant. ISBN 5−94057−090−9. I'm not sure if it's translated into English, though. :−)

I was browsing through that book, than took a break, checked the usenet and saw *that* posting.

The book deals with the question whether mathematics is the "bunch of consequences of some arbitrary axioms or it is a branch of natural sciences and theoretical physics" (quoting Arnold). IMHO, the axioms of maths are not as arbitrary as Arnold's straw man − pure mathematician claims, and yet that does not follow that maths is a branch of physics. Rather both math and physics (and other natural sciences) are part of human activities (or human intelligence); roughly speaking, the humans that produce both maths and natural sciences are the same humans, with the same limitations and the same way of reasoning, hence no one should claim that math and natural sciences are completely insulated from each other. There is always some interaction going on. Yet it does not necessarily follow that maths is a branch of physics or natural sciences in general.

The book, by the way, *is* fun to read, and in fact Arnold gives substantially complex picture than one can guess by reading just the first couple of paragraphs from his book.
.