

From: Jim Milgram

Date: September 20, 2008 12:54:18 PM CDT

To: Jan Segert

Subject: Re: Comparing the August 08 Missouri math standards with your review of the March 08 version

Dear Jan,

I was able to go through grades 6 - 8 and my comments are attached. I found grade 6 to be MUCH improved, grade 7 basically ok with a few errors that are easily fixed. However, Grade 8, while better than it was, still represents a dramatic dumbing down of the the expectations of the NCTM Focal Points. The emphasis on transformations is, frankly, silly in eighth grade. There is no way, at this point that students can achieve anything more than a hand-waving familiarity with them, and by doing so, they take crucial time away from the much more basic material such as the structure of the solutions of two linear equations in two unknowns, that is necessary for a reasonably rigorous understanding of transformations, to say nothing of many other vital topics it supports.

Since I had already pointed out these issues in my original invited review of these standards, I can only assume that the authors are consciously determined to deprive Missouri students of the opportunity to learn this more and more vital part of elementary mathematics well enough to be able to realistically major in technical areas at the university level.

They might argue that they mention two equations in two unknowns at the end of one of the core topics for the algebra course so they have only put it off for a year. However, this is specious. We know that sixth and seventh grade students in the high achieving countries have already done all this material, so it is appropriate to cover it here by grade 8. Moreover, NCTM has realized that it can be done before algebra, and should be for any number of reasons. NCTM has not suggested that transformations should be done as a focal point in or before grade 8.

I did not look at the high school standards since my time is very limited now. But hopefully you will find my comments on grade 6 - 8 helpful. Feel free to show them to anyone you want to.

Yours,
Jim Milgram