From comments in the September issue of Science magazine by Lynn Arthur Steen, a mathematician at St. Olaf College in Northfield, Minn.:

One year ago, America read with alarm "A Nation at Risk," the indictment of public education by the Commission on Excellence in Education. Shortly afterward, the National Science Board issued a parallel, bleak report on education in mathematics, science, and technology.

Both reports make the same points: test scores are low, academic requirements are inadequate and teaching is no longer a prestigious profession.

Slowly, but with gathering momentum, the states are responding. California, Florida, Ohio, Texas and others are increasing requirements: longer school hours here and more required courses there. Some states are even requiring competency tests -- for teachers as well as for students.

As the political momentum of our education crisis peaks, legislators often gravitate to the quick fix, to a nostalgic return to the good old days of stern requirements and no-nonsense exams. It seems that the new regime in education is committed to the basics, even if it means going backward to get there. But today's students need the science and mathematics of the future, not of the past. The world of today's student is dominated by genetic engineering and computer modeling, by new tools used to solve new problems. Yet the world of school tests and texts, too often, is full of old tools applied to old problems.

Reform of school mathematics must reflect this new mathematics. Requiring more tests is of no use if the tests examine only the old mathematics; increasing time in class is of no benefit if it only reinforces old traditions.