

16. What should physics teachers know about students' math difficulties?

David E. Meltzer, Dakota H. King

A five-year multi-institutional study of introductory college physics students has revealed that substantial and consistent difficulties with pre-college mathematical operations are common, and that difficulties with one mathematical topic are tightly linked to difficulties with other topics. We will outline the findings of this investigation and suggest ways in which they may be useful to prospective high school physics teachers and to college faculty who prepare those teachers.