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Using computer algebra systems to develop big ideas in mathematics.

Math. Teach. (Reston) 102, No. 7, 540-544 (2009).

From the introduction: The kind of CAS-inclusive technological environment possible today allows teachers to emphasize big ideas – ideas different from those considered important when today’s teachers (and their teachers!) were high school students. To exemplify the difference that CAS and related tools can make in high school mathematics, we describe several ways in which this technology affects which big ideas students can and should learn about algorithm and function.

Classification: R20 D30 U70

Keywords: mathematical software; computer as educational medium; algorithms; solving equations; systems of inequalities; concept of function; functions; geometric transformations; graphical representations