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Deane E. Arganbright* (dearganbright@yahoo.com), 129 Gene Adams Road, Martin, TN 38237. *Animated Visual Demonstrations of Historical Mathematics via Excel.*

We can productively reexamine many areas of current mathematics by viewing ideas and techniques from our discipline's history. Concepts and techniques from even the recent past (i.e. within the lifetime of current senior professors) are often unknown to today's students. We show how to implement a variety of these topics in animated graphic visualizations using Microsoft Excel. We use these demonstrations in a wide range of classes to increase student interest, provide mathematical insights, and enhance creativity. We focus primarily on computational mathematics (e.g. slide rule, abacus, sector compass), while providing glimpses of innovative approaches to more theoretical aspects from history. Examples for the presentation's live demonstration come from applications used in teaching such classes as calculus, linear algebra, statistics, numerical analysis, and operations research. (Received August 30, 2007)