We have been told to use all the tools

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In the mid nineties, when computer algebra systems and powerful symbolic calculators hit the market, the famous rule of three started to influence the teaching of some mathematics professors: "_every topic should be presented geometrically, numerically and algebraically_" [1].

In 1999, our engineering school decided to adopt Texas Instruments CAS technology. During the following years, many efforts were made in order to write lesson notes with new examples and exercises showing how this technology can be incorporated into the curriculum of some courses such as calculus [2] and differential equations [3]. These new ideas and approaches were presented and enhanced in dedicated education conferences, namely TIME, T^3 and ACA.

This talk will show concrete examples where graphical, numerical and symbolic tools can be used for solving problems in mathematics.

References
[1] DEBORAH HUGUES-HALLETT, ANDREW M. GEEASON, ET AL., _Calculus_, John Wiley & Sons, 1994.
[2] GENEVIÈVE SAVARD, ROBERT MICHAUD, ANDRÉ BORDELEAU, _MAT145 - Calcul différentiel et intégral_, http://cours.etsmtl.ca/SEG/GSavard/mat145/exercices.html.
[3] GILLES PICARD, _MAT265 - Équations différentielles_. https://ena.etsmtl.ca/mod/page/view.php?id=101311.