

Presentations Using Autograph

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(1) The fun of localizing dynamic software

I will describe some of the highs and lows of getting Autograph translated into various languages around the world, including those that use very different alphabets and writing direction. The biggest challenge had to be Arabic, where even the standard Unicode fonts set needed to be expanded to include the likes of a backwards (to us) facing square root!

Arabic apart, most countries use similar written mathematics to the Western conventions, and that surprisingly includes Russian and Chinese! The translation process will be discussed, especially the need to checking by local teachers. Just think how many ways the English use the word “normal” ... This presentation will also look at how other software titles have coped with all this, including Geogebra and Cabri, and discuss the implications of the comma-decimal point issue.

(2) Those magic moments when you realize you could not have taught it that way with chalk

I will run through a number of topics using dynamic software and amazing web resources. These will be based on those magic moments in class when you realize that there is no way you could have explained it so effectively when it was just you and a piece of chalk. Topics will include: Frequency density; introducing ‘e’; areas and volumes; the many and various uses of the parabola, hypothesis testing and some lively statistics.

There will be discussion of the pedagogical advantages of using a graphics tablet in the classroom (for total mobility round the room by the teacher). The effective use of slowing down or stopping the graphing will be discussed, together with judicious use of an interactive pen tool to intervene, predict and, importantly, to raise expectation from the students.

(3) Autograph Workshop for ages 11-16

I will give delegates the opportunity to work through a number of lessons plans covering topics as diverse as transformations of shapes and functions (in 2D and 3D), conic sections (in 2D and 3D), applications of the parabola through world-wide images, and there will be some lively data to analyse. There will be an emphasis on the pedagogical advantage of using autograph tools, especially the slow plot and scribble tool, but also the animation and constant controllers.

(4) Autograph Workshop for ages 16-19

I will give delegates the opportunity to work through a number of lessons plans covering topics as diverse as vectors (in 2D and 3D), differential equations (1st and 2nd order), areas and volumes, and a range of topics from probability and statistics. There will be an emphasis on the pedagogical advantage of using autograph tools, especially the slow plot and scribble tool, but also the animation and constant controllers.