EDITORIAL

I’m currently in full “preparation for teaching” mode. I am preparing lecture materials, making handouts, looking for engaging group activities, finalizing the tests and delaying the inevitable: learning the new online homework system and going through its library of questions. Every technology has its limits and I am particularly mindful of how the students are going to approach the kinds of problems I can assign in the online environment. With limited possibilities for answer types (multiple choice or numerical), the questions tend to be less conceptual and more technical, so it can be very tempting for students to use readily available computer and Internet powers for evil rather than good. They call on the Wolf-man (student slang for Wolfram Alpha) and don’t think much about the answer once they obtain it.

In the current problem solving climate, technology also plays a non-trivial role. Nowadays, anyone can get their hands on heavy machinery such as graphing calculators, Wolfram Alpha, Maple, Mathematica, Sage, etc. The first approach to a problem now often consists of investigating it using some suitable software. This has surely enabled us to solve problems that seemed unattainable before: I myself have reaped the benefits of this approach in both my Master and Doctoral work. But while more seasoned problem solvers know the limitations of computer-assisted work and use it appropriately, the new generation is coming with technology that you cannot pry them away from even if it is completely unsuitable for the task at hand.

So I ask them (and you) this: don’t forget the beauty of pencil and paper and jotting notes in the margins. It is when the pencil makes marks on the paper than math gets understood. Speaking of pencil and paper: if you enjoy straightedge and compass constructions but would rather not use an eraser, you should visit http://euclidthegame.com/. Just don’t blame me if you end up wasting a couple of hours.

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