Sliders –
– A Dynamic Support for Teaching Mathematics

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ABSTRACT

Technology in Math Education is based on four representation forms:

> numerically
> analytically
> graphically and
> verbally.

Didactics demand that the teacher should at least three of them when teaching and exercising mathematics.

We will compare the sliders offered by many programs which are popular in technology supported mathematics education (MS Excel, DERIVE, TI-Nspire, Autograph, WIRIS, GeoGebra, …).

At one hand sliders can intensify the graphic representation and at the other hand they form a link between analytic and graphic representation by emphasising and interpreting the meaning and interpretation of one or more parameters.

We will show and discuss a collection of examples from various fields of school mathematics with sliders playing an important role connecting analytical, graphical and verbal approaches to concepts and models.

Keywords
representation forms, didactical use of sliders, comparing mathematical assistants