

1125-B5-959

Thomas W. Judson* (judsontw@sfasu.edu), Department of Mathematics and Statistics, P.O. Box 13040-3040 SFA Station, Nacogdoches, TX 75962. *Sage Cells: Making Sage Accessible to Students, Teachers, and Authors.*

Sage cells are self-contained Sage calculations that can be embedded in any web page. No software needs to be installed, and no prior knowledge of Sage is required because the commands are pre-loaded. Students can learn Sage by modifying existing commands, lowering the barrier to learning a computer algebra system. In an online text (HTML) a Sage cell is evaluated with a single click. There are no browser plugins to install, nor additional software to download or install. The Sage code is present in the text and requires no programming. By making modifications to the code students and faculty can learn Sage as needed. They can work without fear of making mistakes, because when anything goes wrong they can reload the page to restore the original. For authors it is a straightforward process to add Sage cells to an existing book in MathBook XML, an XML application for authors. The print, pdf, and ePub versions of a document simply display the Sage code as static, but no special handling is required by the author. Project UTMOST is creating a repository of Sage cells organized by mathematical topic to help authors work more efficiently and to allow authors with minimal Sage knowledge to incorporate Sage into their documents. (Received September 13, 2016)