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Mobile linear algebra with Sage.

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Summary: Over the last 20 years, our learning environment for linear algebra has changed dramatically mathematical tools take an important role in our classes. Sage is popular mathematical software which was released in 2005. This software has efficient features to adapt the internet environment and it can cover most of mathematical problems, for example, algebra, combinatorics, numerical mathematics, calculus and linear algebra. Nowadays there are more mobile/smartphones than the number of personal computers in the world. Furthermore, the most sophisticated smartphones have almost the same processing power as personal computer and it can be connected to the internet. For example, we can connect from mobile phone to any Sage server through the internet. We have developed over the years on Mobile mathematics with Smartphone for teaching linear algebra. In this article, we introduce Sage and how we can use it in our linear algebra classes. We aim to show the mobile infrastructure of the Sage and the mobile-learning environment. We shall also introduce mobile contents for linear algebra using Sage. In fact, almost all the concepts of linear algebra can be easily covered.

Classification: H60 U70 U50

Keywords: linear algebra; mobile math; matrix calculator; smartphone; technology

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