Interactive Explorations of Mathematics with TI-Nspire Technology

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Lecture Proposal for the TI-Nspire & Derive Strand

ABSTRACT

TI-Nspire™ technology provides the ability for users to view different representations of mathematical concepts at the same time: graphical, geometric, numeric as well as symbolic. These representations are dynamically linked to help students see connections and to get a better understanding.

TI-Nspire technology can be used to improve algebraic reasoning. Its algebraic – CAS – functionality is interactive and dynamic and linked to graphical and numeric (table) representations. It makes TI-Nspire™ technology a real mathematical teaching and learning tool and can be used as a calculation & graphing assistant.

TI-Nspire Technology is document based. The document structure with independent problems and linked pages within a problem gives students and educators the possibility to save their work in one document, even aligned to the content of textbooks they are using.

To meet different classroom needs and technology use, TI-Nspire Technology offers the same functionality both on handhelds and as computer software:

- Teachers can use the computer software to create materials for students using handhelds and share the materials easily with the students in the classroom,
- Students can easily transition their work between the handheld and computer and share the work with teachers.

We will show, via classroom examples from mathematics to statistics, the educational value of exploring multiple representations of mathematical concepts using TI-Nspire technology.

Keywords
TI-Nspire, dynamic, interactive, CAS, statistics, multiple representations