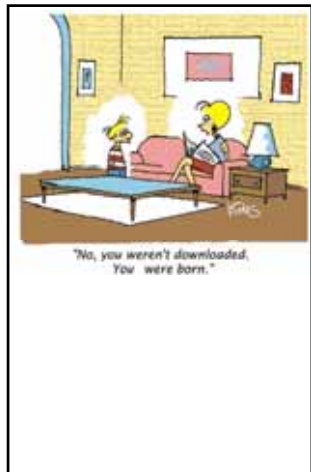


Creative Integration of Multiple Technologies into the Mathematics Classroom

Youngstown State University, 30 years
Youngstown, Ohio USA
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"Any sufficiently advanced technology is indistinguishable from magic."
- Arthur C. Clarke
"Technology makes it possible for people to gain control over everything, except over technology."
- John Taylor



"I am convinced that students are able to learn in more ways than I know how to teach."
- Middle School Math Teacher

Good morning, Australia Maths Teachers



Creative Integration of Multiple Technologies into the Mathematics Classroom

WB's (SMART Boards)
Graphing Calculator Emulators
COLOUR!
Interactive Activities on a handheld or for FREE using a web-based Player

SMART Boards

Use of colour!


Glitz



Capture
- one of my favorites!

Espresso Daily GR May 2008 Chapter 10
SLOPE FIELDS: THE BRAND SPINNON
NEW QP 1 1 apr 2004.doc

Name of polygon?



Notes Online

SMART Board Notes Online SHORT Jan 2010 notebook

TI-Nspire Handheld and Desktop Computer Software

It has changed my teaching and my students' learning in a very positive and profound way.

And now with the new FREE Document Player...

Advantages of using TI-Nspire

Documents that assist the learning

- Develop Conceptual Understanding
- Discover the Math
- Assist with Procedures
- Investigations
- Extra Examples
- Tutorials
- Flash Cards (Study Cards)
- Reviews -- but not using class time
- Actually "buys" me instruction time
- Interactive tutorials
- Animations
- Step-by-step "magic"
- Just "cool stuff"
- Sliders for graphing (and other...)

And now TI-Nspire comes as a co-our handheld:
TI-Nspire CX

TI-Nspire CX

So easy to use,
even a baby could do it!



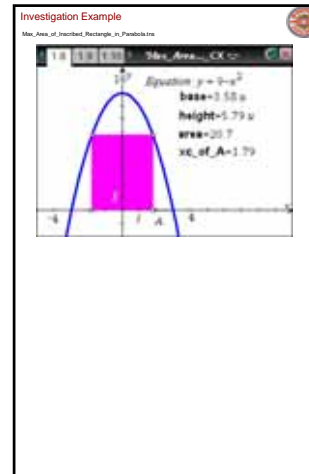
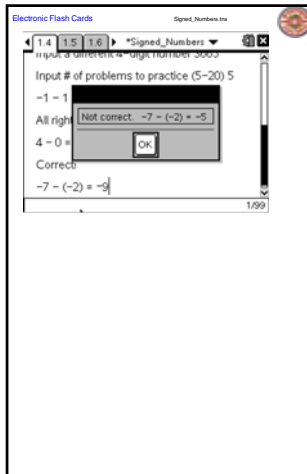


Show 'em some interactive files -- how Nspire assists learning
Also show screen shots and interacting on the emulator

Area Formulas
Signed Numbers
Quadrants_Axes_Origin
Multiple Representations
Solve Quad Eqs 3 examples



Sydney Harbour Bridge
Equation This Curve!
© 2011 Reardon Gifts, Inc.
www.TomReardon.com



e Flash Cards (Study Cards)

Study_Cards_BG.mxd

Question: Equation of this curve?

Answer: A

Reviews -- without using valuable class time

Writing_Equation_of_Line_Review.mxd

Ex. 1: What is the equation of this line? (in slope-intercept form)

First calculate the slope and y-intercept!

Find the slope of the line:

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{0 - 2}{1 - 0} = \frac{-2}{1} = -2$$

Find the y-intercept:

$$y = mx + b$$

$$0 = -2(1) + b$$

$$0 = -2 + b$$

$$2 = b$$

Equation of the line: $y = -2x + 2$

BG Pictures

BGPic_Einstein_Digitize

BGPic_Einst...and

BGPic_Einst...CK

More pictures with Basic Graphs

Basic_Graph_Pic_Student_Samples_2008.pdf

"Buy" valuable classroom time:

Mathematical Modeling

Mathematical_Modeling_1.mxd

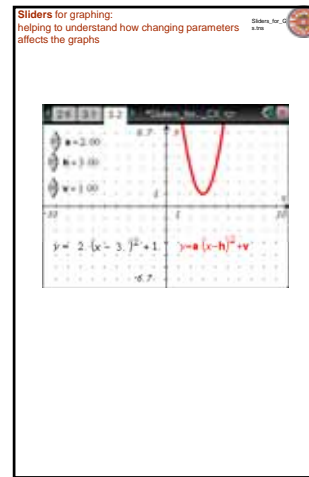
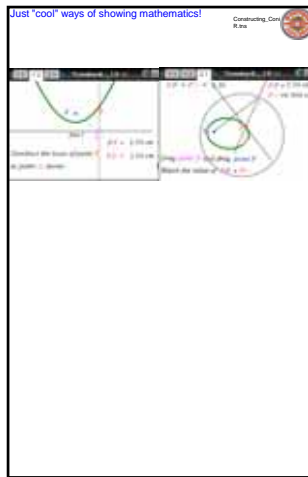
Also, it makes students more accountable for their learning.

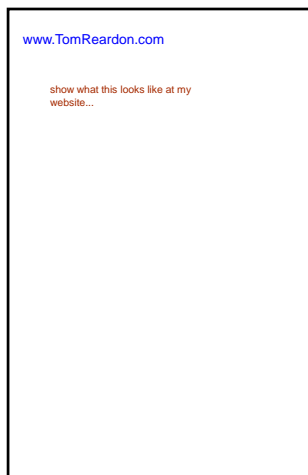
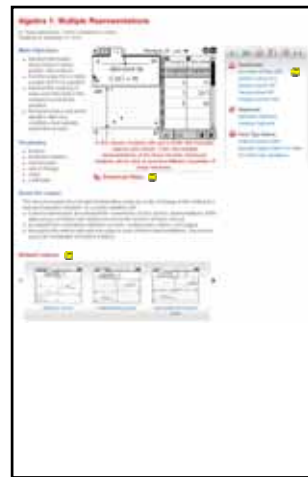
# of seats	3	5	8	11	14	17	20	23
ticket price (dollars)	3	7	11	7	3	7	11	7

Add pages to this document to graph this data and find an equation that models this data.

Then use this equation/graph to answer the questions on the next page.

Show necessary work on your paper and in your calculator. **Save the file when finished.**





What if you could use this technology...
for **FREE!**

Well, now you can using
the TI-Nspire online Player

<http://education.ti.com/html/nspireplayer/2.1/#applicationIndex.html>

Area Formulas
Is A Circle a Polygon...? *new!*
Quadrants
Domain and Range
Function or Not
Pythagorean Relationships
Mitosis
3D

Summary
TI-Nspire
is an outstanding teaching AND learning tool
saves me valuable instruction time
assists with differentiating instruction
provides extra practice at the individual's own pace (slow or fast or "just right")
allows me to give tutorials, extra examples, and teach topics I don't have class time to do
Now with the TI-Nspire Document Player, you can use over 1000 activities for FREE!

SMART Boards
Allow me to instruct in color as a valuable teaching tool
Help me to teach to the student "who isn't there" by placing my notes in pdf online
Let me be my own "sub" with fantastic results
Buy valuable class time with video tutorials on CD
Assist students who are absent or who are struggling by placing videos of the actual classroom presentation online
SMART Boards tie it all together!

One item to cross
off my bucket list...



