

TSM WORKSHOP
with
DOUGLAS BUTLER
Director, ICT Training Centre, Oundle, UK

**MAKING THE BEST USE OF ICT RESOURCES
IN MATHEMATICS TEACHING**

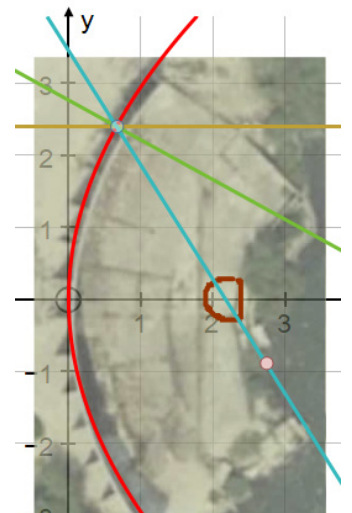
at The St. Stanislaus Institute, Ljubljana 24-26 October 2019

Thursday afternoon: Finding and using great web resources

Images, data, simulations, mathematical objects on Google-Earth
Using a spreadsheet (Excel/Google docs) as a teaching/analytical tool

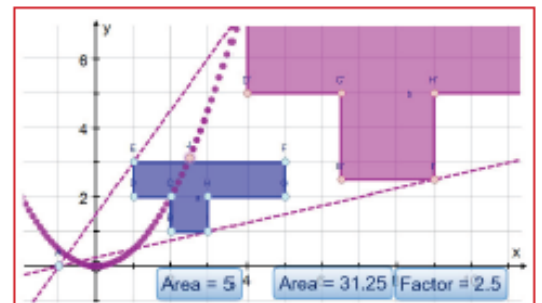
Friday morning: Introduction to AUTOGRAPH version 5

Object creation and object selection; object attributes
Controlling object labels; the attribute calculator; new attribute point
The constant controller and animation controller: family plots
The pedagogical use of dynamic software: create . . challenge . . reveal
Assigning constants to attributes.



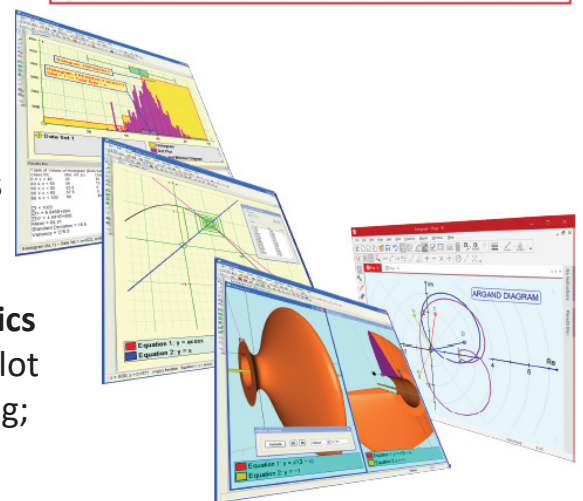
Friday afternoon: AUTOGRAPH for junior classes

Creating shapes, regular polygons and circle properties
Routine geometric transformations
Exploring linear/quadratic functions: the slow plot feature
Introducing trigonometric functions



Saturday morning: AUTOGRAPH for senior classes

The implicit form, polar/parametric plotting
Introducing 'e'; gradient function and integral function
Differential equations: first and second order
The argand diagram: a dynamic look at complex numbers
3D topics: lines, planes, intersections



Saturday afternoon: AUTOGRAPH for probability/statistics

Elementary statistical analysis: the scatter diagram; dot plot
Advanced statistics: linear regression, histogram, sampling;
Discrete probability distributions; normal distribution;
Hypothesis testing; Creating datasets

To prepare, explore Douglas' TSM RESOURCES WEB-SITE:
www.tsm-resources.com