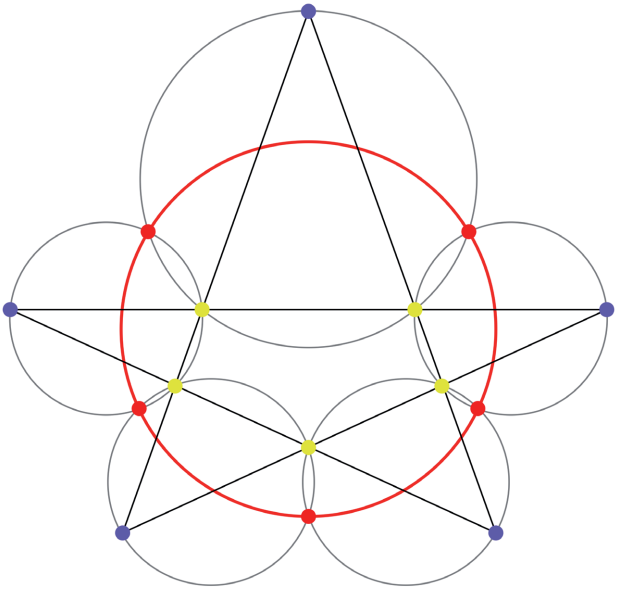
ITEMS
project



Improving Tools for E-assessment in Maths and Science

Co-funded by the
Erasmus+ Programme
of the European Union

Objectives

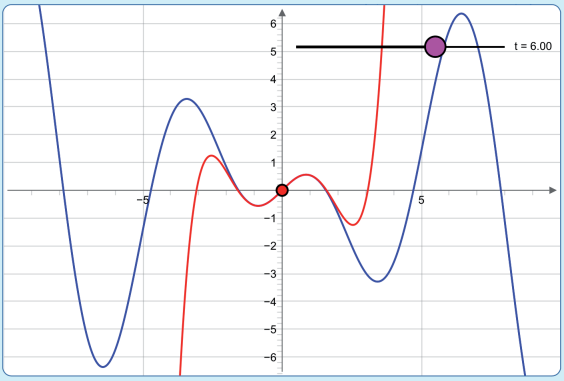
ITEMS main objective is to design and promote innovative methods, pedagogies, learning materials and tools to be used in STEM subjects, at Higher Education and high school level as well.

This will be done through the following specific objectives:

- >>Create elearning modules integrating e-assessment tools and assignments activities for STEM teaching.
- >>Explore the use of JSXGraph software in order assignments activities to be more efficient and engaging for students (online, blended, ...).
- >>Monitor the pedagogical effectiveness of materials by means of Learning Analytics tools.
- >>Promote professional development training activities and the mentoring of educators involved in the management of the material created.
- >>Integrate JSXGraph into moodle/Ilias and STACK/FORMULAS
- >>Distribute materials created as Open Education Resources (OER) and MOOCs.

Target Groups

- ►>University and high school students at STEM subjects
- ►>University teachers and teacher trainers
- ►>E-Learning content developers
- ►>Software developers, and more specifically open-source developers
- ►>Educational researchers and policy makers



Here the functiongraph of $f(x) = x \cdot \cos(x)$ is plotted blue and the graph for Taylor (Maclaurin) polynomial P_n for f is plotted red. Use the slider to change the order n. Currently plotted is

$$P_6(x) = x - \frac{1}{2} \cdot x^3 + \frac{1}{24} \cdot x^5$$

where the variable x is the corresponding coordinate of the red dot tracing the graph of P_n.

$R($ 0 $) \approx$ 0 .

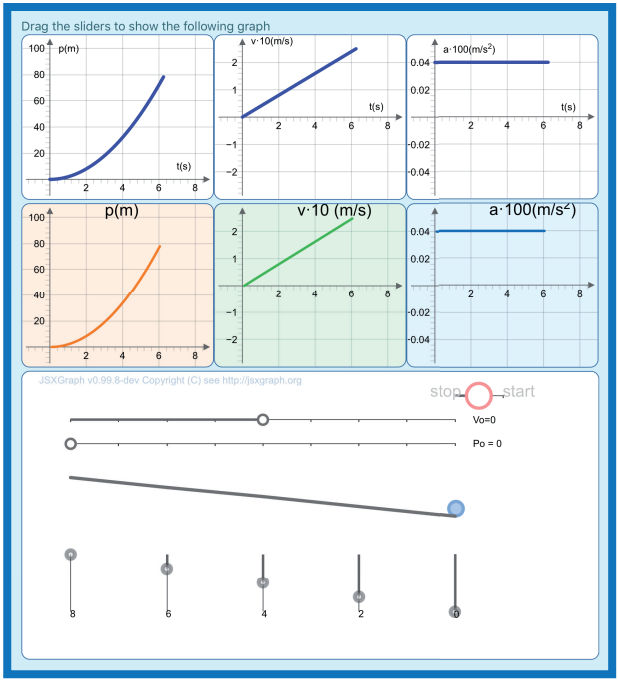
Public Events

►>Creation of research-based digital & multilingual materials to develop STEM competences (moodle, JSXGraph, STACK, FORMULAS)
3. – 6. September 2019
Alicante, Spain

►>1st International JSXGraph conference
8./9. October 2020
Bayreuth, Germany

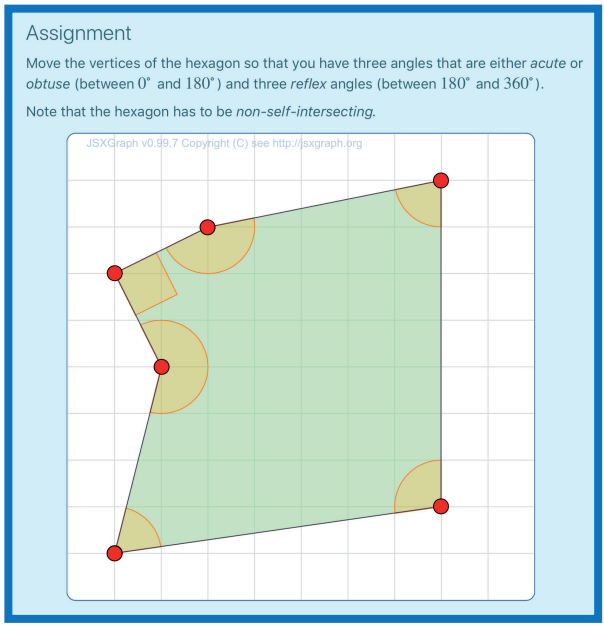
Register at **itemspro.eu**

More events to come ... !



Get Involved

Developed content will be shared on itemspro.eu and ABACUS database (abacus.aalto.fi). JSXGraph programming handbook will be available on github.com.



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Partners

- Universität Bayreuth, Germany
  project leader
- Univerza v Mariboru, Slovenia
- Aalto-yliopisto, Finland
- Jihočeská univerzita v Českých Budějovicích, Czech Republic
- IES Mediterránia, Spain
- BonNouEdu SL, Spain
- Conselleria de Educación, Investigación, Cultura y Deporte, GVA, Spain

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