Visual Mathematics in Practice

Name of the teacher:	Tatjana Stanković
Name and address of the school:	ETŠ"Nikola Tesla", Maksima Gorkog 7, Pančevo, Serbia
Theme of the lesson:	Trigonometry Graphs of trigonometric functions, properties
Place in curriculum:	The secondary school of electrical engineering
(type of school, grade)	1st grade
Age of the students/pupils:	15-16
Title of the lesson:	Graphs of trigonometric functions, properties

Description of the lesson-1st part

Time	Exercises, matters, parts of the lesson	Methods and forms of student activities	Developable competencies
≈20min	Watching the movie about method of graphing trigonometric functions and discussion about it Using GeoGebra to	work in pairs, individaul work	Mathematical thinking (analysis, synthesis, analog thinking...) Problem posing and solving (flexibility of thinking, pliability,

≈25min	compare graphs of basic trigonometric functions with graphs of trigonometric functions y=a+bsin(cx+d), y=a+bcos(cx+d), y=a+btg(cx+d), y=a+bctg(cx+d) Inspiration came from: Djurdjica Takači, Teachers day-Vesna Babović	transferring...) Reasoning and proofs (conclusion, generalization, effect relations...) Symbols and formalism (associative and reason-based memory, thinking in functions and algorythms, recognizing relations...) Using mathematics aids and tools (IT included)

Summary

It was very interesting, pupils enjoyed learning this way.

They were much more active, they had to pay attention on small details in order to make their own conclusions.

Supplements

Used materials: *http://www.youtube.com/watch?v=dHrldYLkVTo&list=PLNZ1j1GBSK1k2xUB6F2XBCcrsmfJgDMi6&index=2*

GeoGebra

Photos: *I don' t have any photos about this part of the lesson.*