



Visual Mathematics in Practice

Name of the teacher:	Milena Životić
Name and address of the school:	Peta ekonomska škola "Rakovica" Hasanaginice 8, Belgrade
Theme of the lesson:	Analytic geometry
Place in curriculum: (type of school, grade)	School of economics, 3 rd grade (3 lectures per a week)
Age of the students/pupils:	17
Title of the lesson:	Exercise: Equation of line. Distance between two points. Conditions of parallelism and ortogonality (using Geogebra)

Description of the lesson			
Time	Exercises, matters, parts of the lesson	Methods and forms of student activities	Developable competencies
10 min	<p><u>Introduction:</u> Explaining students what is Geogebra and how it will be used in todays lesson. Short overview of formulas that are going to be used during the lesson.</p>	Buzz Groups	Systematization, logical conclusion, creativity, task keeping, flexibility of thinking, planning, looking for connection, whole partial skill perception, attention keeping, communication, deductive and inductive thinking, speed of exercise-solving, algorythmical thinking
30min	<p><u>The main part:</u> During the lesson students are soloving tasks and we are together checking the result using Geogebra. Tasks:</p> <ol style="list-style-type: none"> The points $A(-2,2)$, $B(4,2)$ and $C(3,0)$ are vertices of the triangle ABC. <ol style="list-style-type: none"> What is perimeter of the triangle? What are the equations of medians of the triangle? What are the lengths of mediand of the triangle? 		

5min	<p>2. Point $P(2,-3)$ belongs to the line p. Line $l: 3x-2y+2=0$ is parallel to line p.</p> <p>a) What is the equation of the line p?</p> <p>b) What would be the equation of the line p if it would be orthogonal to line l?</p> <p>Summary: Homework: Check your e-mail and find in the attachment the file <i>PrestoniceKarta.ggb</i>. Then using Geogebra solve the task: Our traveling route at last excursion was Belgrade-Praha-Budapest-Belgrade. How many km did we cross?</p> <p>Inspiration: Workshop Mathematical Modeling with Geogebra – Djurdjica Takači</p>		
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Summary

Students were much more motivated for solving tasks than it was before by using only black board. I will see more results during this week when I get solution of their homework.

Supplements

Used materials: *There are files *zadatak658.ggb*, *zadatak668.ggb* in this folder.*