



Visual Mathematics in Practice

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Name and address of the school:	Fifth School of Economics „Rakovica”, Hasanaginice 8, Belgrade
Theme of the lesson:	Progressions
Place in curriculum: (type of school, grade)	High School of Economics, 3 rd grade (3 lessons per a week)
Age of the students/pupils:	17
Title of the lesson:	Arithmetic progression (systematization of topic by using crocheting patterns)

Description of the lesson

Time	Exercises, matters, parts of the lesson	Methods and forms of student activities	Developable competencies
10min	<p><u>Intorduction:</u> <i>Short overview of arithmetic progression. Telling students basics of crocheting and how it can be used in mathematics.</i></p>	<p><i>Work in groups/cooperative groups</i></p>	<p><i>Systematization, logical conclusion, creativity, task keeping, flexibility of thinking, planning, looking for connection, whole partial skill perception, algorithmic thinking, attention keeping, communication</i></p>
30min	<p><u>The main part:</u></p> <p>Group 1: <i>Find a pattern for crocheting a circle.</i></p> <p>Group 2: <i>Find a pattern for crocheting a square.</i></p> <p>Group1 and Group2 are having a paper with basic crocheting terms (single crochet, half crochet, double crochet) and how it looks like. They are using those terms to make a pattern and they have to find good mathematical model that could describe crocheting pattern.</p>		

5min	<p>Group 3: Dcompose crocheted circle, find a mathematical model that could describe crocheted circle , dicover which crocheting simbols were used and make a crocheting pattern.</p> <p>Group 4: Dcompose crocheted square, find a mathematical model that could describe crocheted circle , dicover which crocheting simbols were used and make a crocheting pattern.</p> <p>Group3 and Group4 are having a papaer with basic crocheting terms.</p> <p>All groups have to present each other a process of their thinking (for example, as an algorithm, an chart, an drawing...)</p> <p><u>Summary:</u> Discussion with students:analyzing what's done; how did they feel while they were doing it; what they got of this lesson and what kind of experinece are they going to bring out with them when they walk out of classroom?</p>		
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Summary

Since we started to work on a topic of developing algorithmic thinking using crocheting mathematical models, this is something that we are going to try this school semester. So, the results will be after that period.

Supplements

Used materials: *Used material is in a attachment!*