



Lifelong Learning Programme



Country: Turkey, Lithuania

Schools: Aydin Fen Lisesi, Siauliai Didzdvaris Gymnasium

Software: GeoGebra

Subject: Mathematics

Topic: 3D Geometry in Siauliai and Aydin City Symbols.

Participating Teachers:

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Participating Students:

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Cooperation Duration: 19/11/2013 – 15/03/2014

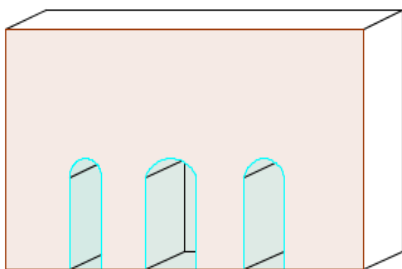
Theory: Integration of Mathematical facts and theory (volumes, surface areas) of GeoGebra with real objects.

Example: the students are to calculate the volumes and the areas of their partner cities' symbolic figures.

Tralles Arcs (TR)



Front view:



Side view:



Top view:



SURFACE AREA

Top: 225 m²

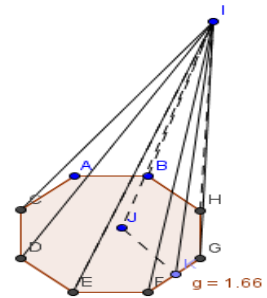
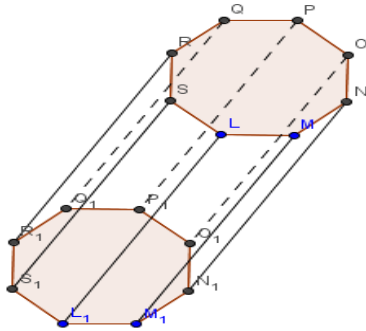
One side: 130 m²

Front: 1170 m² - 46,25 m² - 74,31 m² - 57,45 m² = 991,99 m²

VOLUME: 5850 - 186 = 5664 m³

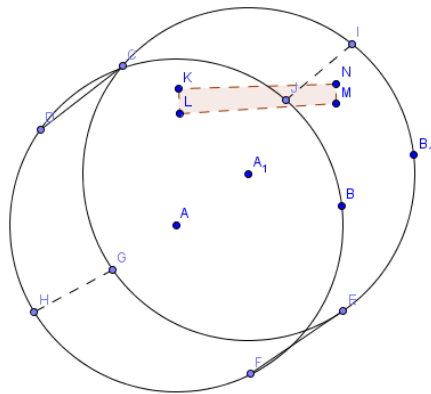
NOTICE: the volume is not entirely accurate due to shape of arches

Beltry of Siauliai (LT)



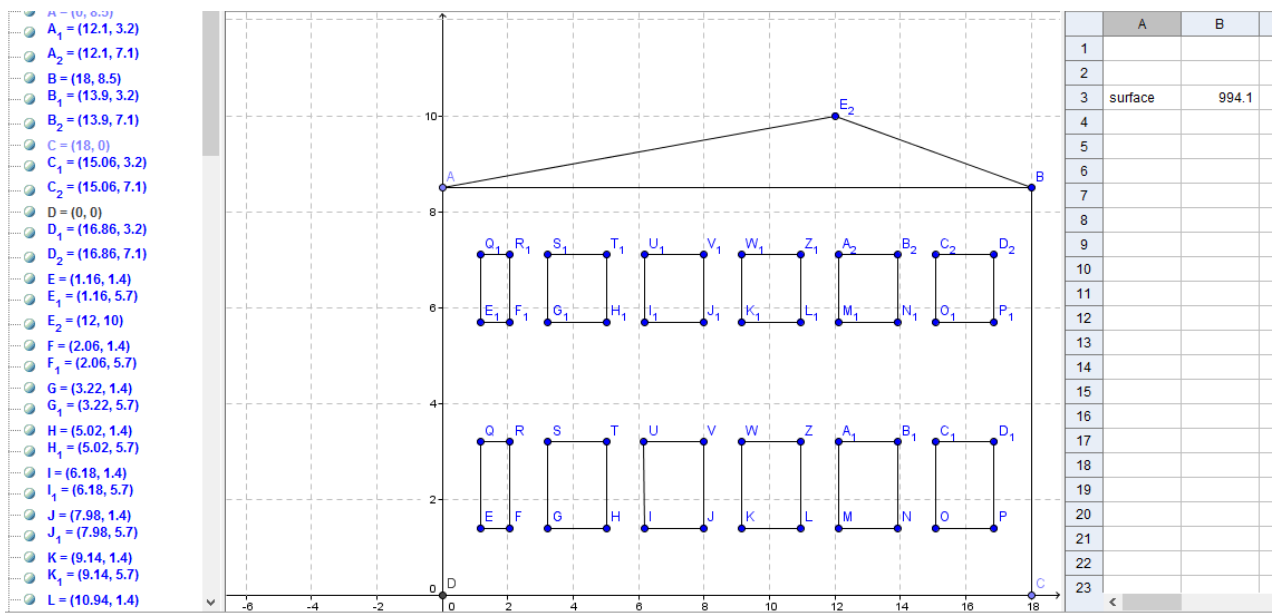
	A	B	C	D	E	F
1	$h(\text{building})$	'='	70			
2	$h(\text{roof})$	'='	125		(in meters)	
3	$\text{width}(1/8)$	'='	4			
4						
5	<i>Of the building:</i>					
6			Volume	54		
7			Area	2240		
8						
9						
10	<i>Of the roof:</i>					
11			Volume	386		
12			Area	480		
13						
14						
15	<i>Total:</i>					
16			Volume	3914		
17			Area	2720		
18						
19	Second Task:					
20	Height of Burj Khalifa	'is'	828			
21						
22	Answer:	'is'	10			
23						

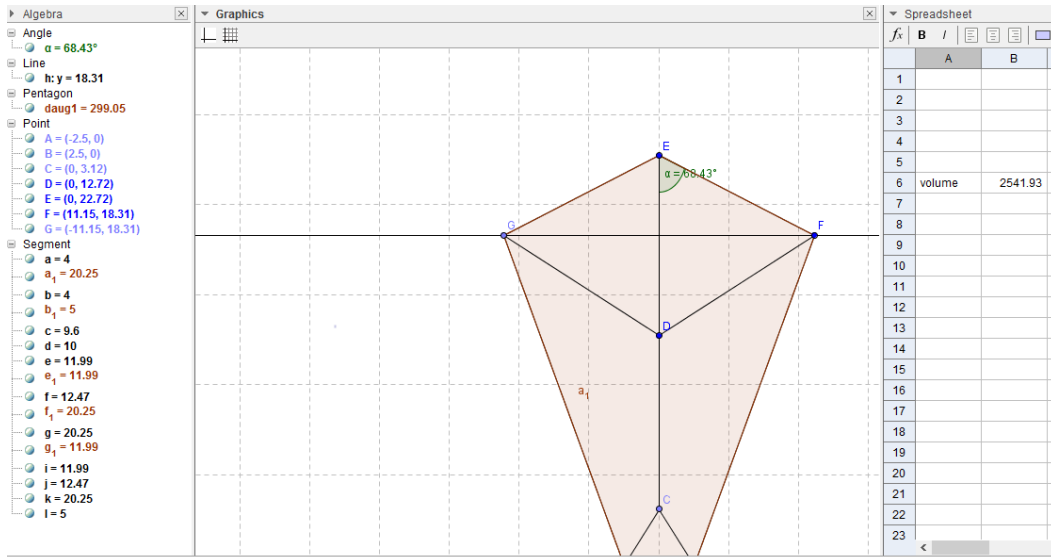
Fountain Sun discs (LT)



	A	B	C	D	E
1	r(radius)	"="	175		
2	h (width)	"="	15		(in centimeters)
3					
4	<i>A single disc:</i>				
5			Volume	1442437	
6					
7			Area	16677	
8					
9	<i>Total:</i>				
10			Volume	4327312	
11					
12			Area	626430	
13	Second Task:				
14	Your fountain streams out	20.8	litres	per second.	
15					
16	Answer is approximately:	70	seconds.		
17					

Bank of Aydın (TR)





	A	B	C	D	E
1	POOL				
2					
3	6	dm3	-	38000	dm3
4		dm3	-	1568	dm3
5					
6		x =	0.25		
7					
8		Per year	2.97		
9					
10					
11	BANK				
12					
13	6	dm3	-	38000	dm3
14	x	dm3	-	2541925	dm3
15					
16					
17		x =	401.36		
18					
19		Per year	4816.28		
20					
21		1 :		1621	
22					