VISIT MATH

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Answers

Step 1: Temple of Olympian Zeus

Since the scale is 1:100, this means that the miniature is 100 times smaller than the original. So the real column is 100*17cm = 1700cm=17m

Step 2: Hadrian's Gate

The diameter is 6.5, so the radius = 6.5/2 = 3.25m. The perimeter is 2πr, so half the perimeter (i.e. perimeter of the semicircle) = 3.14*3.25 ≈ 10.21m

Step 3: Tower of the Winds

Area of an octagon: $2(1+\sqrt{2})a^2$ (a is the length of the side)
Area= 49.44 m^2
Volume=593.3172 m^3 (it is the area x height)

Step 4: The Temple of Hephaestus

Practically 9m of length correspond to 4m of width. So, width is 4/9 of the length = 4/9*69.5m = 30.89m

Step 5: The sacred triangle

a) An isosceles triangle is a triangle that has two equal sides. Also, the two angles opposite the two equal sides are equal. In other words, we can say that "An isosceles triangle is a triangle which has two congruent sides". The vertex angle is 42°.

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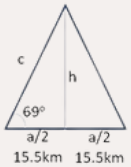
The sum of the degrees of all the angles of a triangle is 180°. Since the other two angles have the same degree 42°+x°+x° = 180° so x = 69°.

b) On the right you can see an isosceles triangle
By using the tangent (opposite/adjacent) we have tan(69°) = h/(a/2) => 2.605 = h/15.5km => h=40.4km
We then use Pythagorean theorem $c^2 = (a/2)^2 + h^2$ => c^2=240.25 + 1632.16=> c^2= 1.872.41=> c=43.27km



Step 6: Let's relax a bit at Thiseio

How you can find it? Use the following cipher.

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	a	b	c

We do desiphering. So we use the mapping of the second line to the first line. So 'Ghprfudfb' becomes 'Democracy'

Step 7: Last but definitely not least!

If you visit the museum, you will find out that 5 of the original Caryatids are in the Acropolis Museum, and 1 is in the British Museum; the statues currently on the Caryatid Porch are replicas.

We know that length/width = φ = 1.618, thus the width is aprox. 6.42m

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