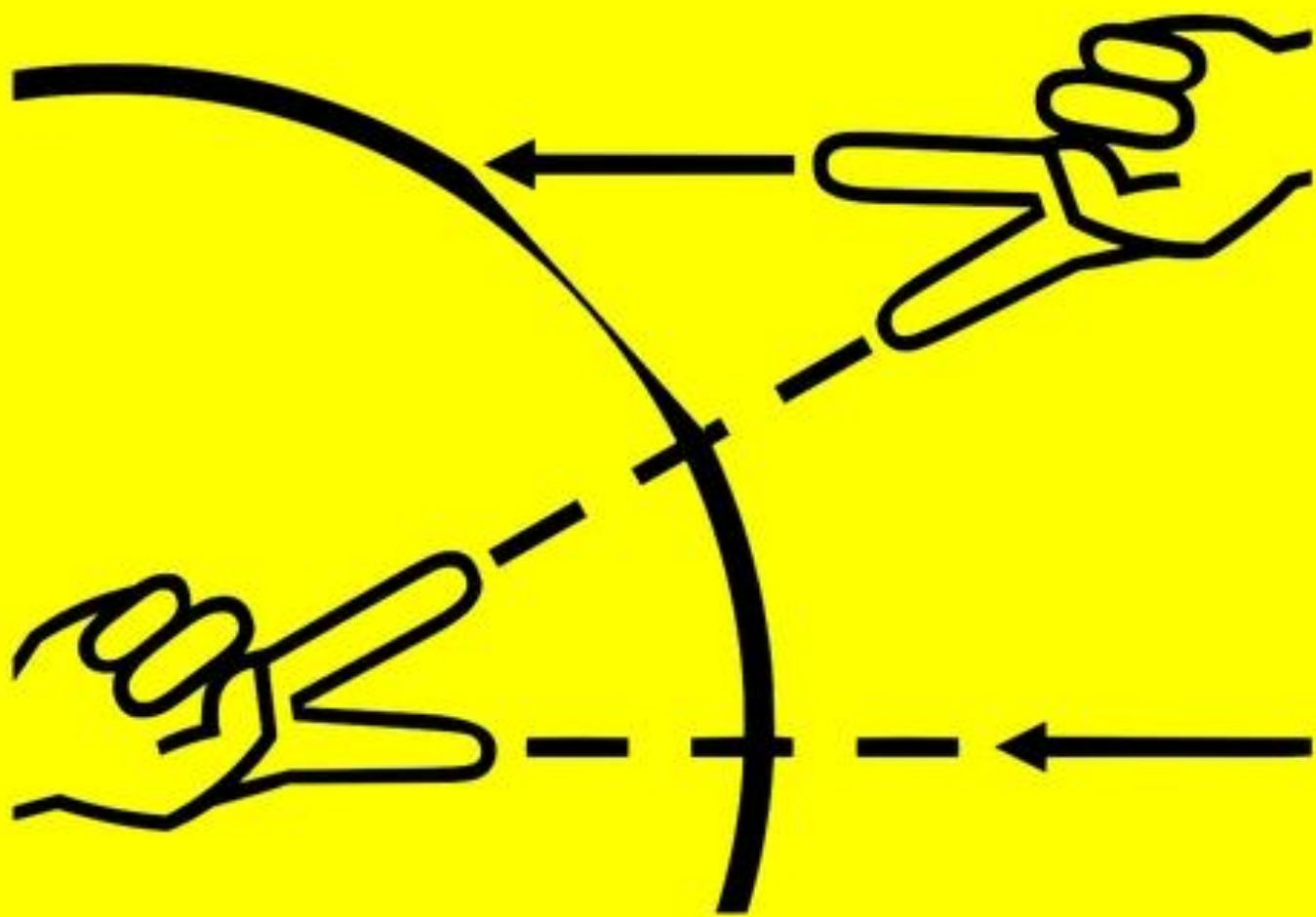


# Eratosthenes



April 2016

3  
Continents

9  
Countries

27  
Schools

65  
Measures

ARGENTINA (1)

Anisacate

BRAZIL (3)

Rio de Janeiro

CHINA (1)

Shenzhen

CROATIA (3)

Brštanovo, Donji Muć, Neoric

FRANCE (1)

Lafrançaise

GREECE (12)

Aigio, Alexandroupoli, Athens Ilion, Athens Agion  
Anargyron, Chania, Ioannina, Komotini, Nafplion,  
Petroupoli, Piraeus, Pylos, Thessaloniki

ITALY (2)

Merlara, Marina di Carrara

ROMANIA (3)

Bucharest, Busteni, Mărgineni

TAIWAN (1)


Kaohsiung

Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Shenzhen	China	荔園小學南校區	22.549	114.092
	Kaohsiung	Taiwan	鳳西國中 FXM	22.621	120.354
	Anisacate	Argentina	Fundación Caminos de Anisacate	-31.717	-64.400
	Rio de Janeiro	Brazil	Colegio Pedro II	-22.906	-43.175
	Rio de Janeiro	Brazil	Centro Educacional Nosso Mundo	-22.890	-43.317
	Rio de Janeiro	Brazil	MAST - Museu de Astronomia e Ciências	-22.896	-43.224
	Brštanovo	Croatia	Osnovna škola kneza Branimira	43.658	16.415
	Donji Muć	Croatia	oš kneza Branimira	43.694	16.462
	Neoric	Croatia	OŠ Neorić - Sutina	43.686	16.520
	Lafrançaise	France	Collège Antonin Perbosc	44.127	1.237
	Aigio	Greece	1st High School of Aigio	38.252	22.079
	Alexandroupoli	Greece	Pilot Elementary School of Alexandroupolis	40.843	25.871
	Athens	Greece	Experimental College Agion Anargyron	38.027	23.726
	Athens	Greece	3rd Junior High School of Ilion	38.037	23.712
	Chania	Greece	Primary School DDMN	35.485	24.082
	Ioannina	Greece	Experimental College	39.666	20.845
	Komotini	Greece	3rd Junior High School Komotini	41.121	25.394
	Nafplion	Greece	Panhellenic conference of Informatic	37.564	22.794
	Petroupoli	Greece	4o Junior High School	38.036	23.674
	Piraeus	Greece	2nd Junior High School of Korydallos	37.977	23.655
	Pylos	Greece	1st Kindergarten of Pylos	36.911	21.694
	Thessaloniki	Greece	NOESIS Science Center and Technology Museum	40.562	22.995
	Merlara	Italy	Lower Secondary School "Dante Alighieri"	45.163	11.446
	Bucharest	Romania	Iulia Hasdeu National College	44.443	26.127
	Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535
	Mărgineni	Romania	Gh. Popescu School	44.533	24.554

# Aigio, Greece

April 2016

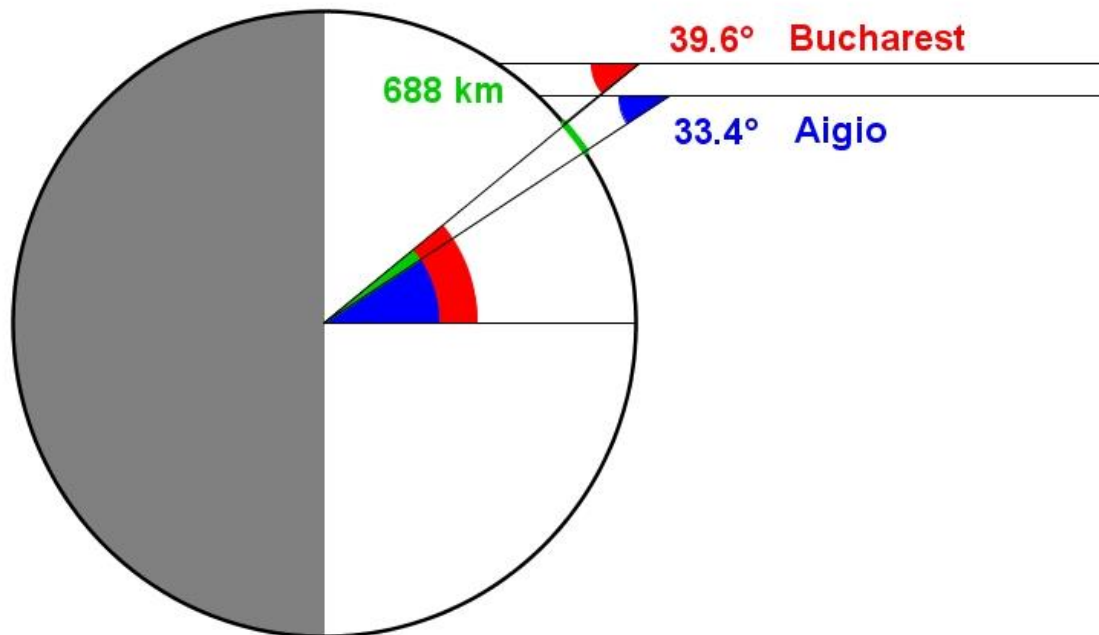


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Aigio	Greece	1st High School of Aigio	38.252	22.079

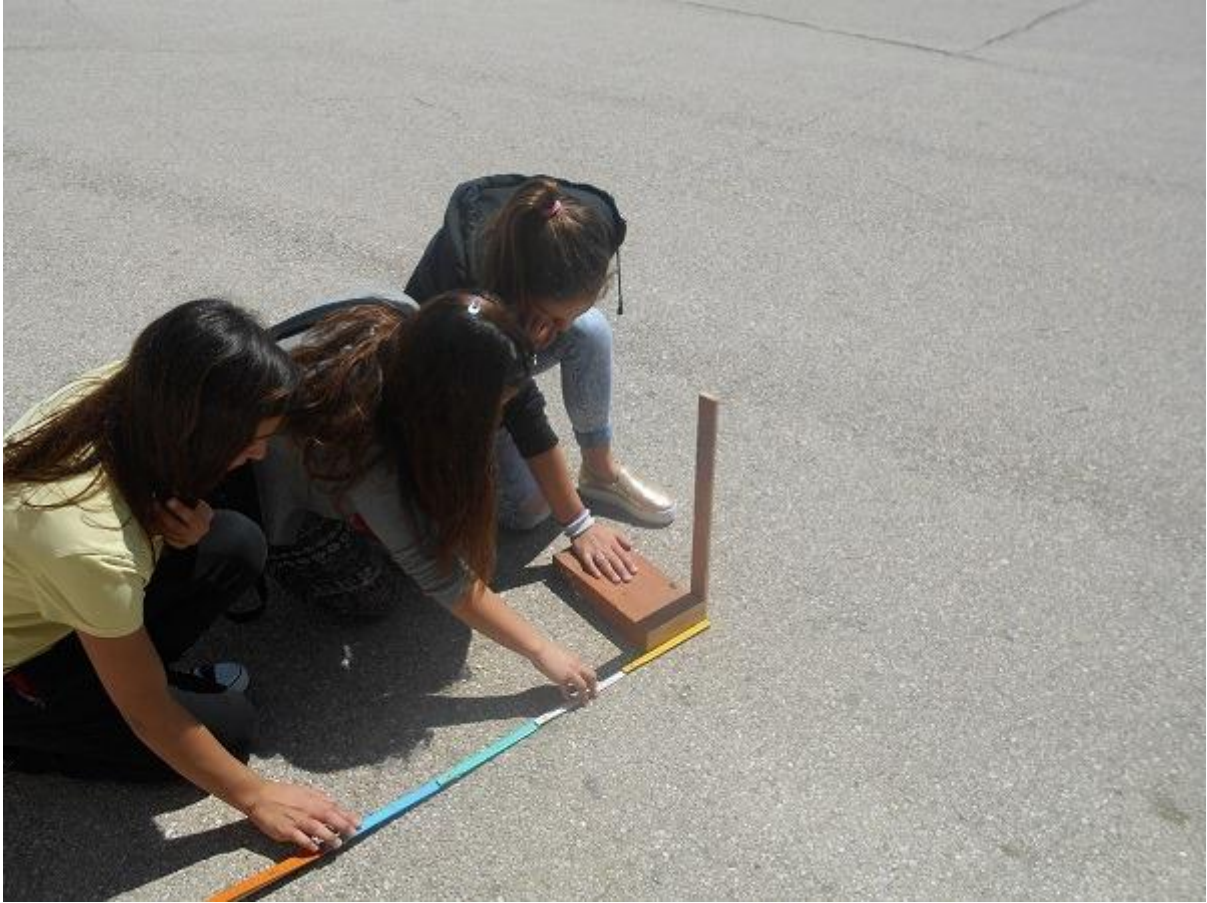
Date	Gnomon	Shadow	Angle
01 April	50.0 cm	33.0 cm	33.4°
11 April	50.0 cm	28.5 cm	29.7°
15 April	50.0 cm	26.8 cm	28.2°

1 April 2016 (Bucharest-ROMANIA) Latitude: 44.443°

1 April 2016 (Aigio-GREECE) Latitude: 38.252°



$$\text{circumference} = \frac{360^\circ \times 688 \text{ km}}{39.6^\circ - 33.4^\circ} = 39948 \text{ km}$$



# Alexandroupoli, Greece

April 2016

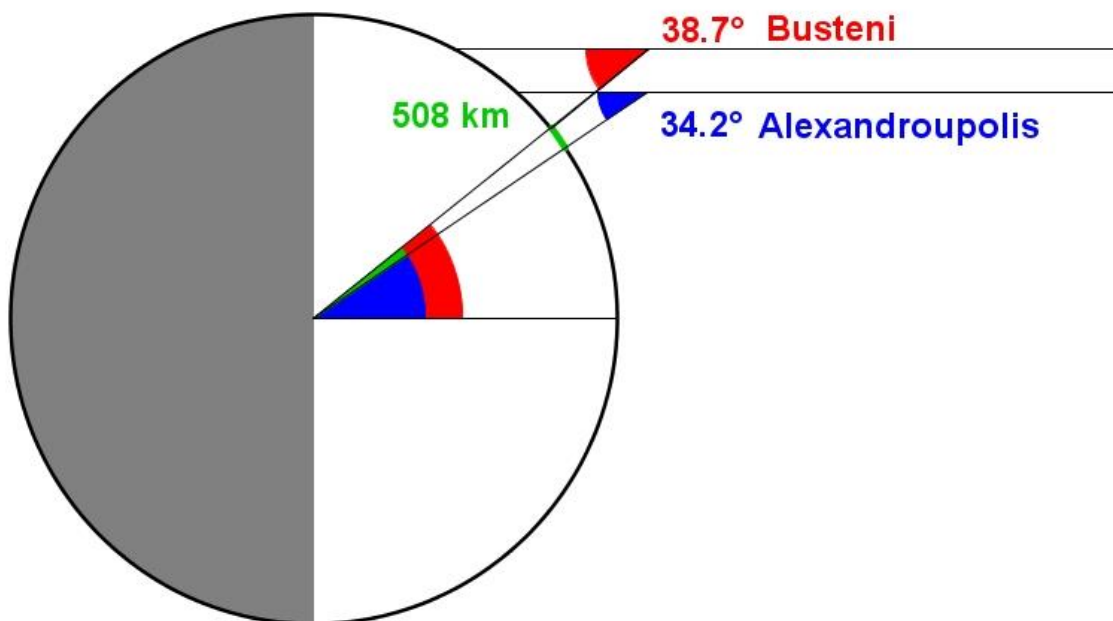


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Alexandroupoli	Greece	Pilot Elementary School of Alexandroupolis	40.843	25.871

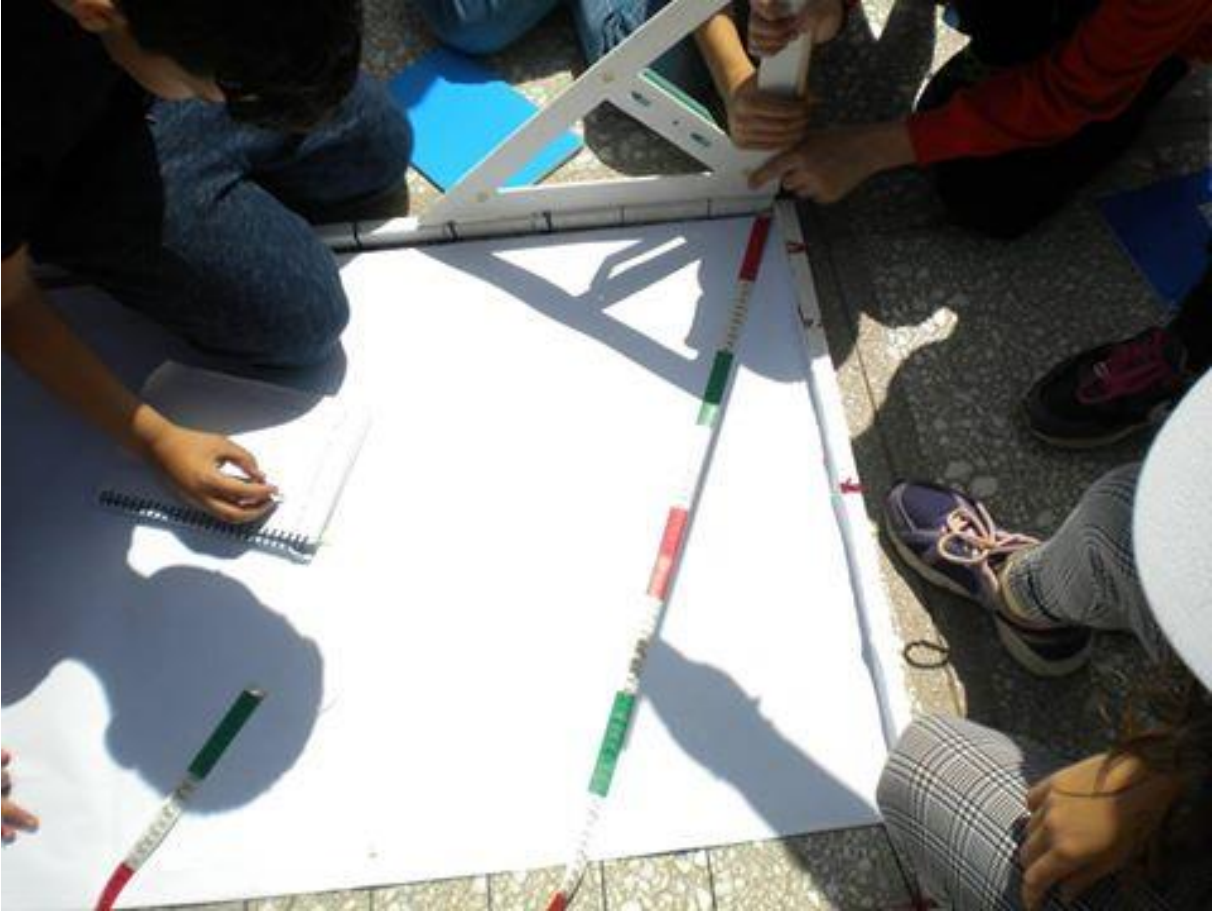
Date	Gnomon	Shadow	Angle
06 April	100 cm	68 cm	34.2°

06 April 2016 (Busteni-ROMANIA) Latitude: 45.416°

06 April 2016 (Alexandroupolis-GREECE) Latitude: 40.843°



$$\text{circumference} = \frac{360^\circ \times 508 \text{ km}}{38.7^\circ - 34.2^\circ} = 40640 \text{ km}$$



# Anisacate, Argentina

April 2016

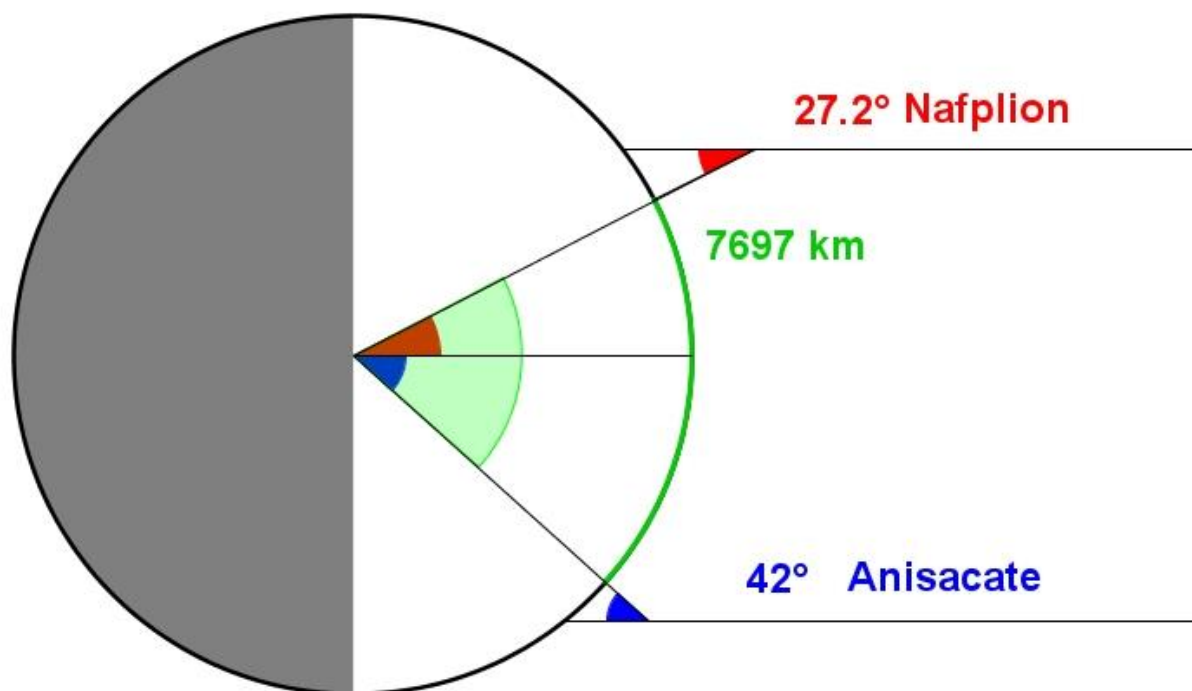


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Anisacate	Argentina	Fundación Caminos de Anisacate	-31.717	-64.400

Date	Gnomon	Shadow	Angle
14 April	100 cm	-89.2 cm	-41.7°
15 April	100 cm	-90.0 cm	-42.0°

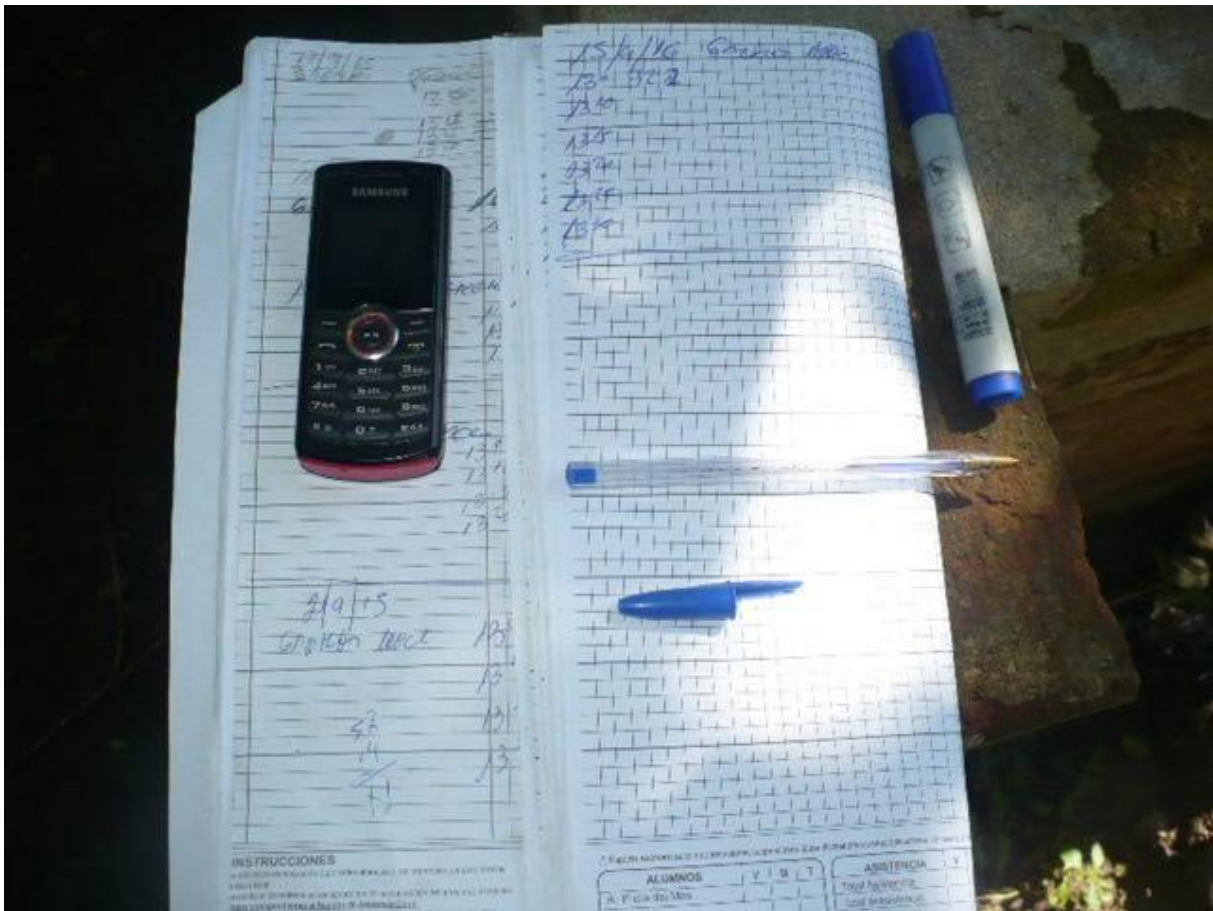
16 April 2016 (Nafplion-GREECE) Latitude: 37.564 °

15 April 2016 (Anisacate-ARGENTINA) Latitude: -31.717 °



$$\text{circumference} = \frac{360^\circ \times 7697 \text{ km}}{27.2^\circ + 42^\circ} = 40042 \text{ km}$$





# Athens-A, Greece

April 2016

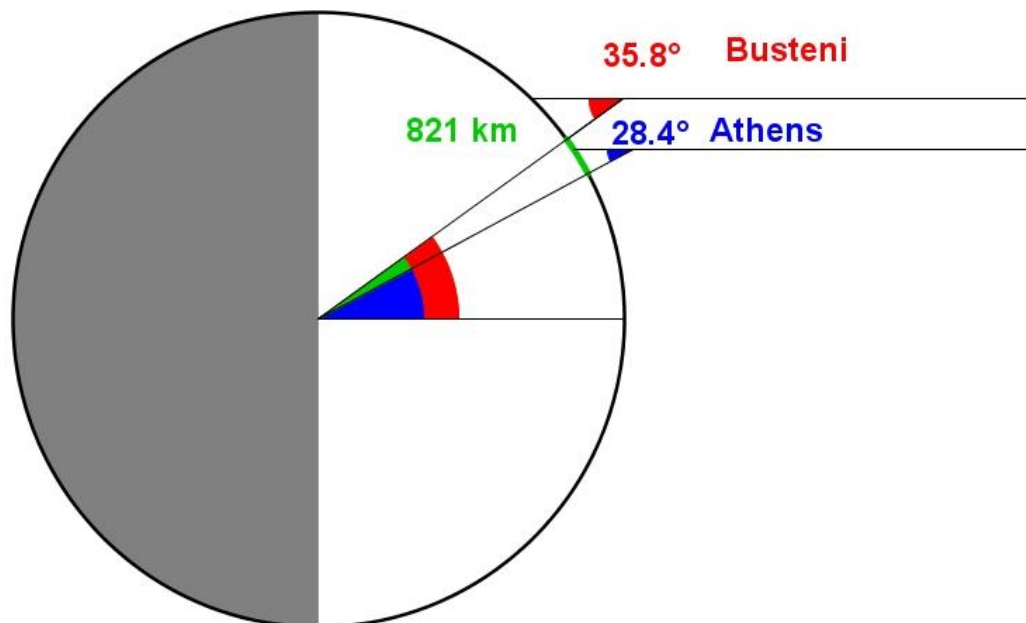


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Athens	Greece	Experimental College Agion Anargyron	38.027	23.726

Date	Gnomon	Shadow	Angle
13 April	49 cm	26.5 cm	28.4°

13 April 2016 (Busteni-ROMANIA) Latitude 45.416

13 April 2016 (Athens - GREECE) Latitude 38.027



$$\text{circumference} = \frac{360^\circ \times 821 \text{ km}}{35.8^\circ - 28.4^\circ} = 39941 \text{ km}$$



# Athens-I, Greece

April 2016

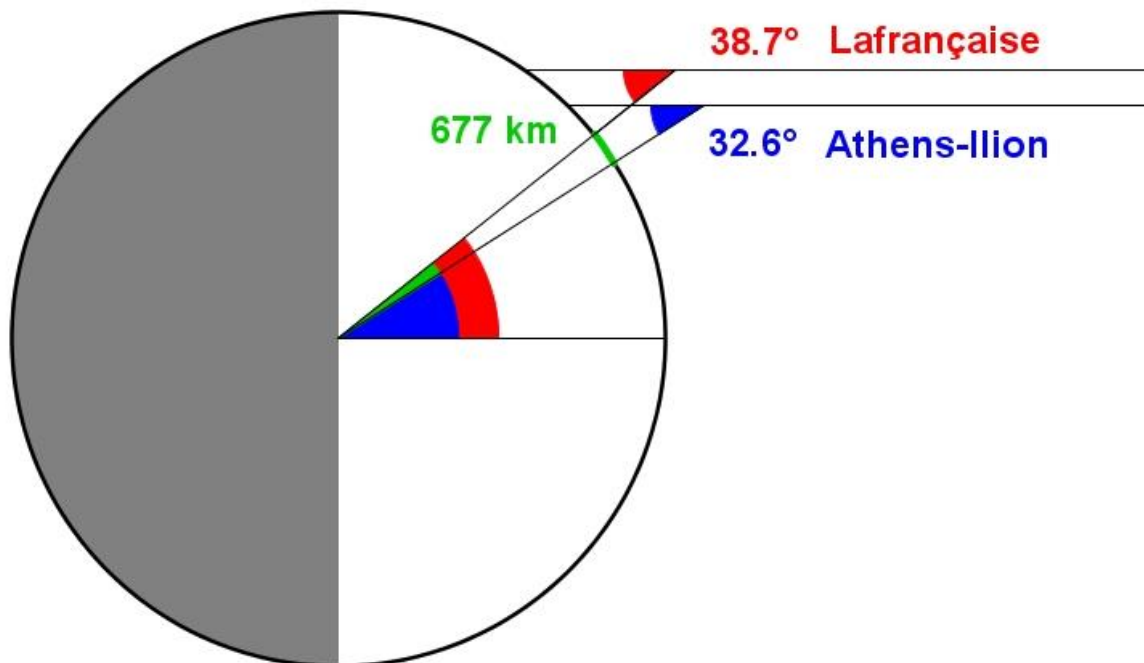


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Athens	Greece	3rd Junior High School of Ilion	38.037	23.712

Date	Gnomon	Shadow	Angle
04 April	100 cm	64 cm	32.6°
06 April	100 cm	62 cm	31.8°
12 April	100 cm	56 cm	29.2°

04 April 2016 (Lafrançaise-FRANCE) Latitude: 44.127°

04 April 2016 (Athens-Ilion-GREECE) Latitude: 38.037°



$$\text{circumference} = \frac{360^\circ \times 677 \text{ km}}{38.7^\circ - 32.6^\circ} = 39954 \text{ km}$$



# Brštanovo, Croatia

April 2016

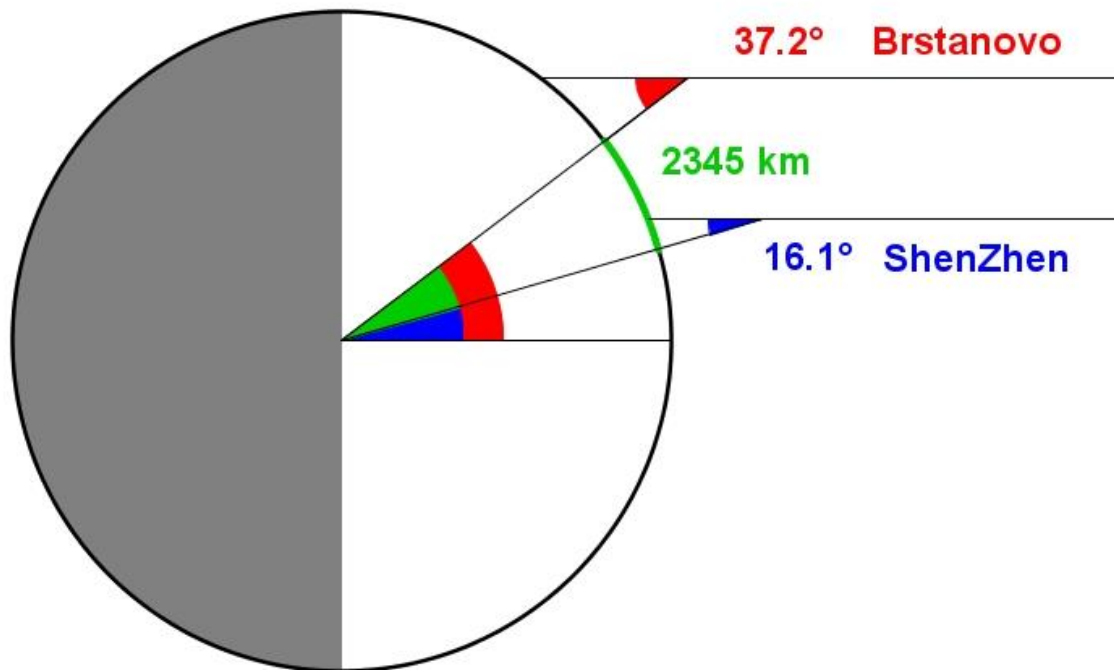


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Brštanovo	Croatia	Osnovna škola kneza Branimira	43.658	16.415

Date	Gnomon	Shadow	Angle
04 April	100 cm	76 cm	37.2°
05 April	100 cm	77,5 cm	37,8°
11 April	100 cm	67.5 cm	34.0°

04 April 2016 (Brstanovo-CROATIA) Latitude: 43.658°

04 April 2016 (ShenZhen-CHINA) Latitude: 22.549°



$$\text{circumference} = \frac{360^\circ \times 2345 \text{ km}}{37.2^\circ - 16.1^\circ} = 40009 \text{ km}$$



# Bucharest, Romania

April 2016

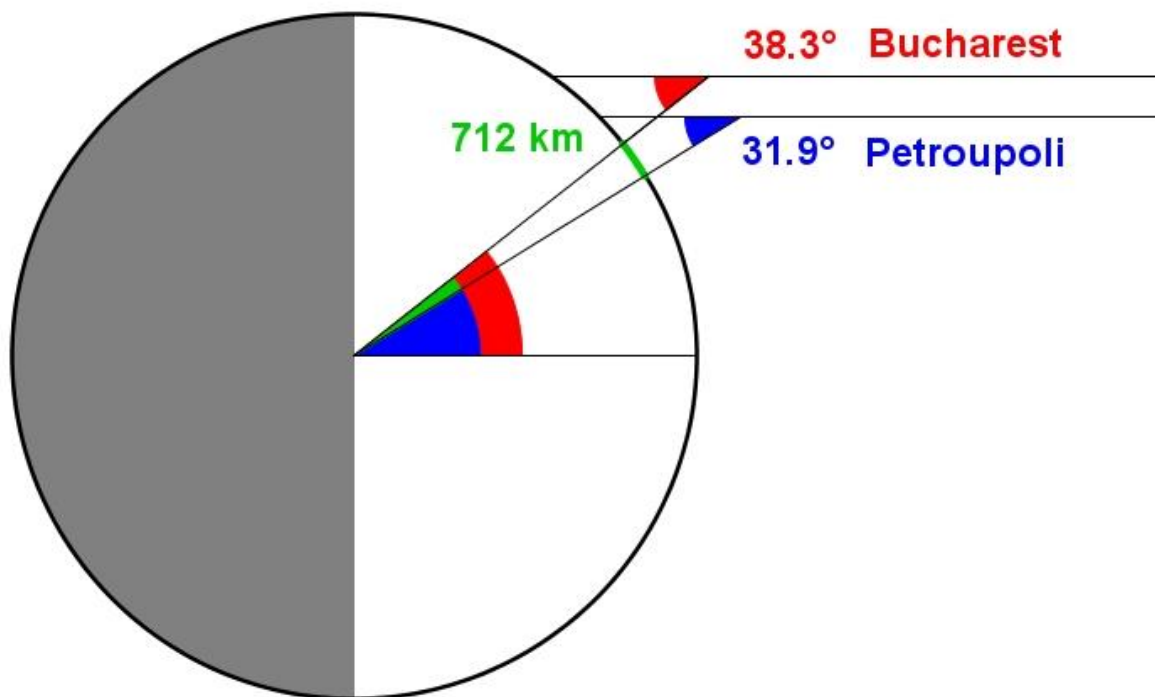


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Bucharest	Romania	Iulia Hasdeu National College	44.443	26.127

Date	Gnomon	Shadow	Angle
01 April	100 cm	82.8 cm	39.6°
04 April	100 cm	79 cm	38.3°
05 April	100 cm	78.8 cm	38.2°
07 April	100 cm	76 cm	37.2°
13 April	100 cm	71 cm	35.3°

04 April 2016 (Bucharest-ROMANIA) Latitude: 44.443°

04 April 2016 (Petroupoli-GREECE) Latitude: 38.036°



$$\text{circumference} = \frac{360^\circ \times 712 \text{ km}}{38.3^\circ - 31.9^\circ} = 40050 \text{ km}$$






# Busteni, Romania

April 2016

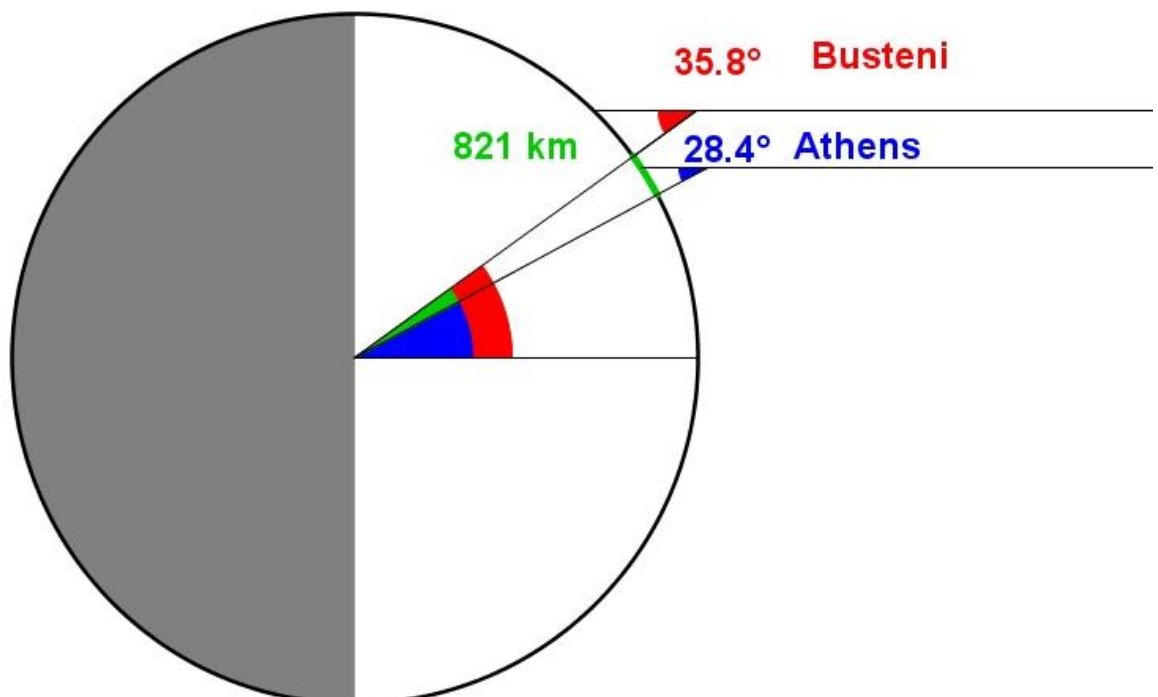


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535

Date	Gnomon	Shadow	Angle
05 April	100 cm	81 cm	39°
06 April	100 cm	80 cm	38.7°
07 April	28 cm	22 cm	38.2°
12 April	100 cm	73.5 cm	36.3°
13 April	100 cm	72 cm	35.8°
22 April	100 cm	64 cm	32.6°

13 April 2016 (Busteni-ROMANIA) Latitude 45.416

13 April 2016 (Athens - GREECE) Latitude 38.027




$$\text{circumference} = \frac{360^\circ \times 821 \text{ km}}{35.8^\circ - 28.4^\circ} = 39941 \text{ km}$$



# Chania, Greece

April 2016



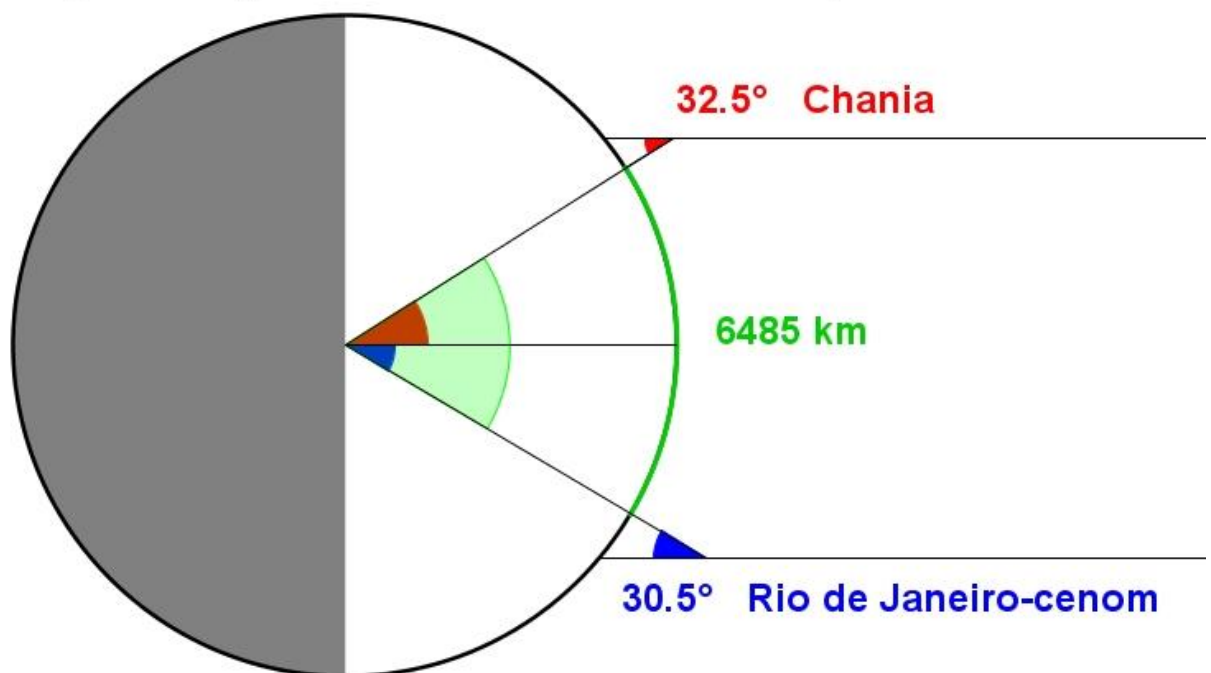
Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Chania	Greece	Primary School DDMN	35.485	24.082

Date	Gnomon	Shadow	Angle
07 April	14.3 cm	9.1 cm	32.5°

07 April 2016 (Chania-GREECE) Latitude: 35.485

08 April 2016 (Rio de Janeiro-cenom-BRASIL) Latitude: -22.89




$$\text{circumference} = \frac{360^\circ \times 6485 \text{ km}}{32.5^\circ + 30.5^\circ} = 37057 \text{ km}$$



# Donji Muć, Croatia

April 2016

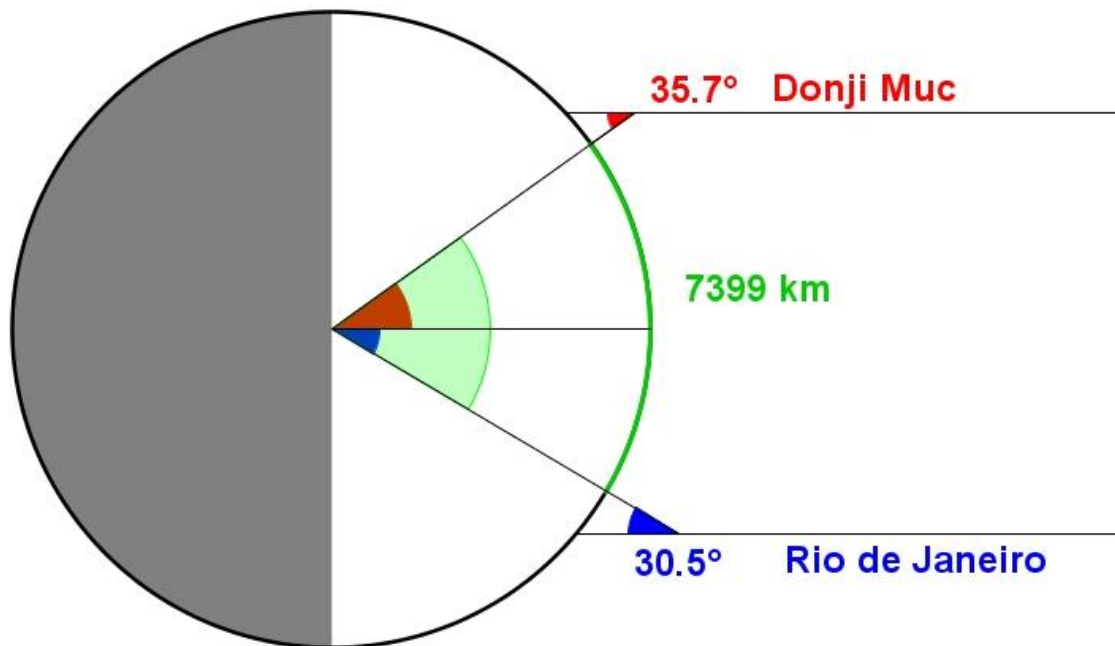


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Donji Muć	Croatia	oš kneza Branimira	43.694	16.462

Date	Gnomon	Shadow	Angle
04 April	100 cm	78.5 cm	38.1°
06 April	100 cm	75.9 cm	37.2°
07 April	100 cm	75.8 cm	37.2°
11 April	100 cm	71.9 cm	35.9°
14 April	100 cm	70.8 cm	35.3°
28 April	100 cm	31.0 cm	31.4°

11 April 2016 (Donji Muc-CROATIA) Latitude: 43.694

09 April 2016 (Rio de Janeiro-BRAZIL) Latitude: -22.906




$$\text{circumference} = \frac{360^\circ \times 7399 \text{ km}}{35.7^\circ + 30.5^\circ} = 40236 \text{ km}$$



# Ioannina, Greece

April 2016

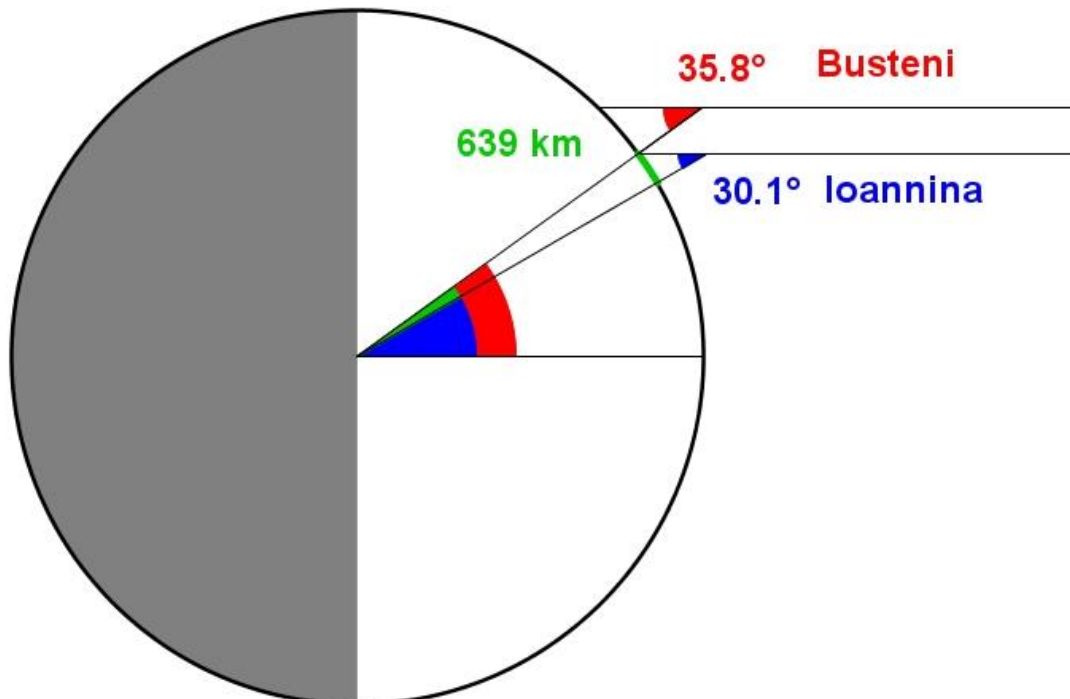


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Ioannina	Greece	Experimental College	39.666	20.845

Date	Gnomon	Shadow	Angle
13 April	100 cm	58.3 cm	30.1°

13 April 2016 (Busteni-ROMANIA) Latitude 45.416

13 April 2016 (Ioannina- GREECE) Latitude 39.667



$$\text{circumference} = \frac{360^\circ \times 639 \text{ km}}{35.8^\circ - 30.1^\circ} = 40358 \text{ km}$$






# Kaohsiung FXM, Taiwan

April 2016

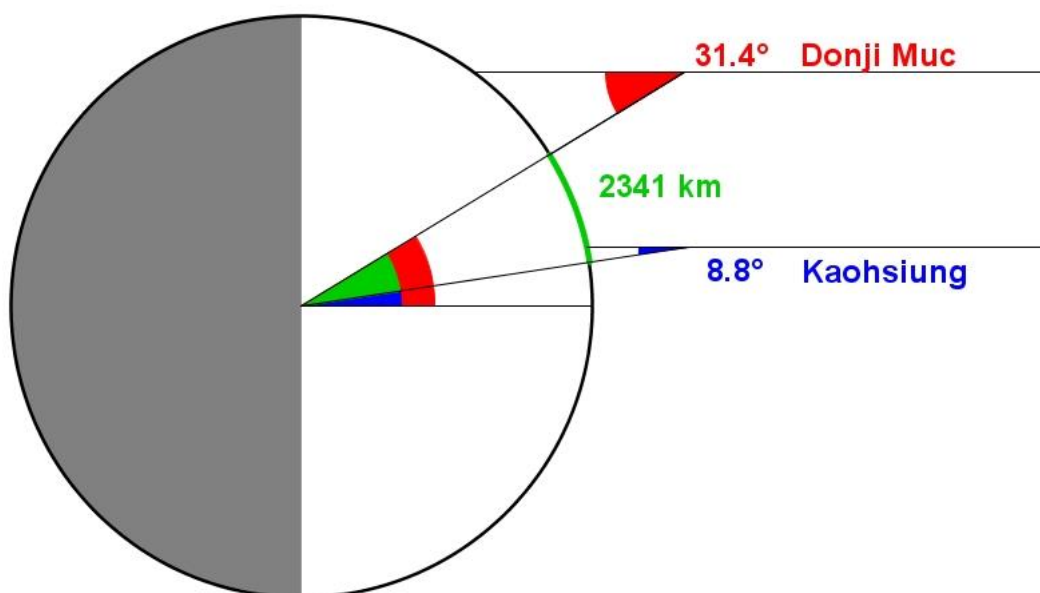


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Kaohsiung	Taiwan	鳳西國中 FXM	22.621	120.354

Date	Gnomon	Shadow	Angle
27 April	200 cm	319 cm	8.8°

28 April 2016 (Donji Muc-CROATIA) Latitude 43.694

27 April 2016 (Kaohsiung- TAIWAN) Latitude 22.621




$$\text{circumference} = \frac{360^\circ \times 2341 \text{ km}}{31.4^\circ - 8.8^\circ} = 37290 \text{ km}$$



# Komotini, Greece

April 2016

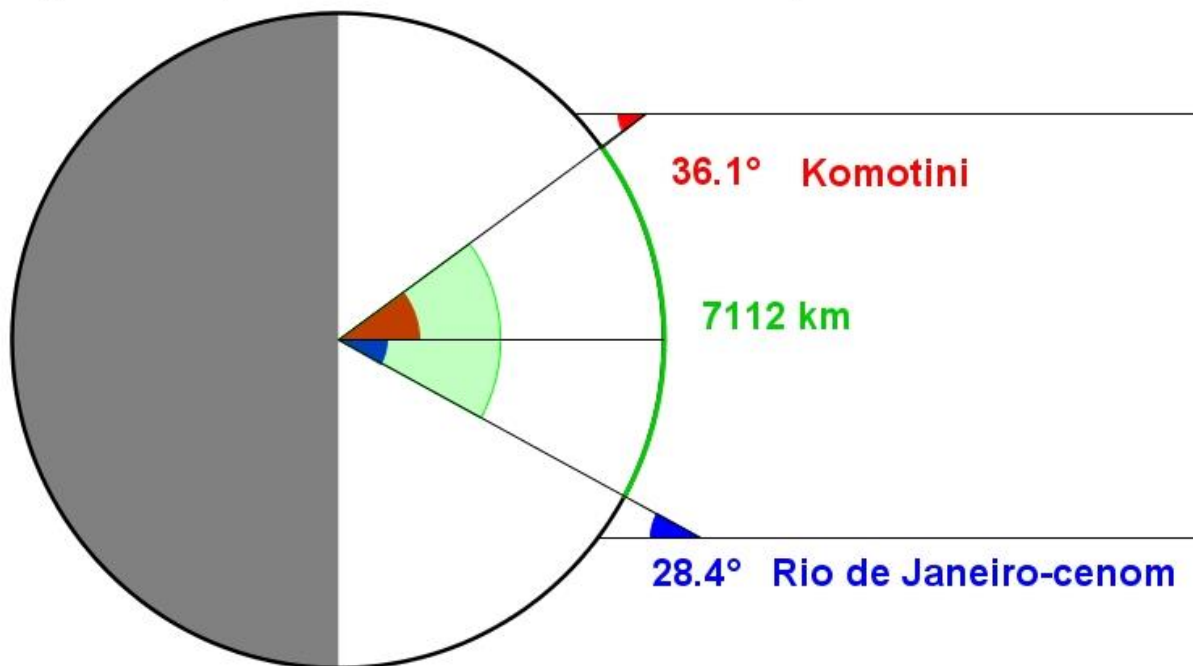


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Komotini	Greece	3rd Junior High School Komotini	41.121	25.394

Date	Gnomon	Shadow	Angle
01 April	100 cm	72.9 cm	36.1°

1 April 2016 (Komotini-GREECE) Latitude: 41.121

1 April 2016 (Rio de Janeiro-cenom-BRAZIL) Latitude: -22.89




$$\text{circumference} = \frac{360^\circ \times 7112 \text{ km}}{36.1^\circ + 28.4^\circ} = 39695 \text{ km}$$



# Lafrançaise, France

April 2016

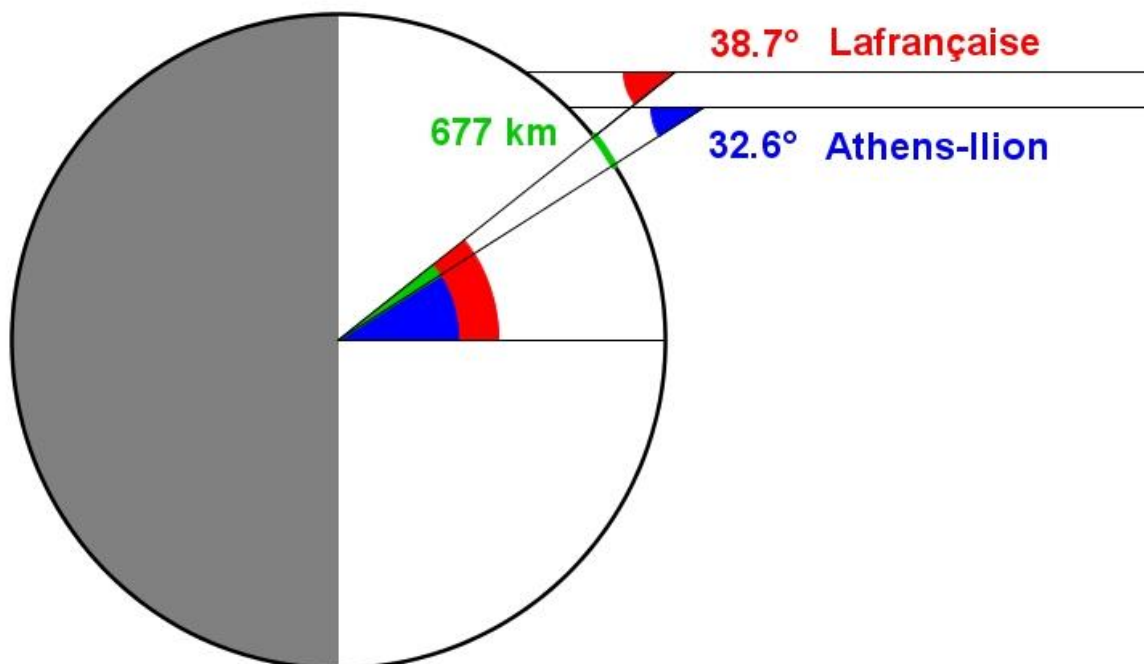


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Lafrançaise	France	Collège Antonin Perbosc	44.127	1.237

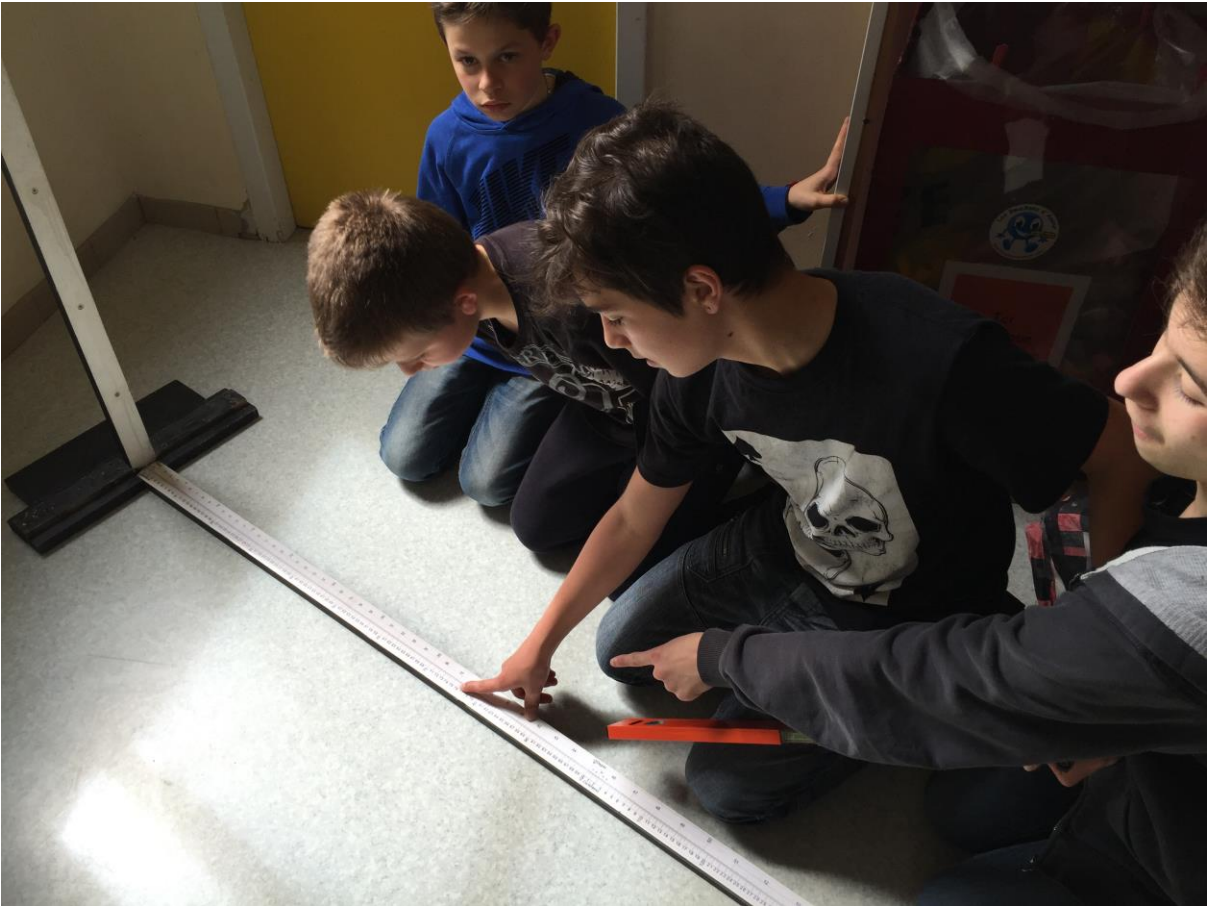
Date	Gnomon	Shadow	Angle
04 April	100 cm	80 cm	38.7°
07 April	100 cm	75 cm	36.9°
11 April	100 cm	71 cm	35.4°
14 April	100 cm	69 cm	34.6°

04 April 2016 (Lafrançaise-FRANCE) Latitude: 44.127°

04 April 2016 (Athens-Ilion-GREECE) Latitude: 38.037°




$$\text{circumference} = \frac{360^\circ \times 677 \text{ km}}{38.7^\circ - 32.6^\circ} = 39954 \text{ km}$$



# Mărgineni, Romania

April 2016

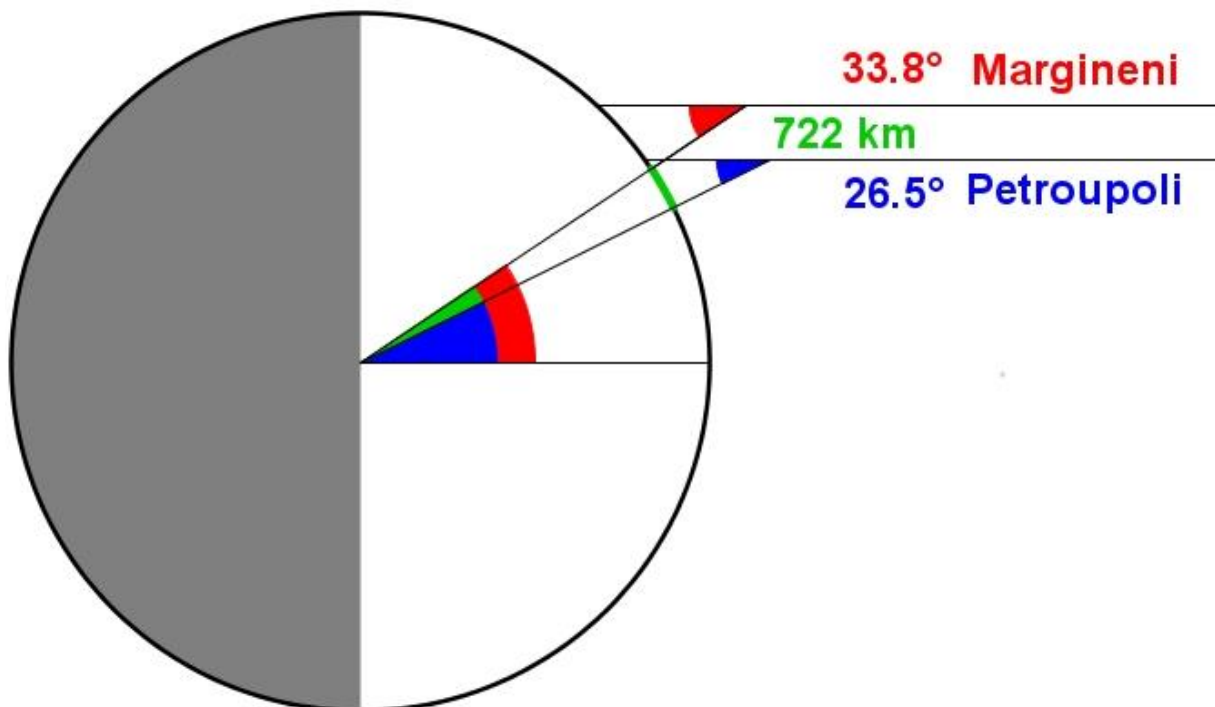


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Mărgineni	Romania	Gh. Popescu School	44.533	24.554

Date	Gnomon	Shadow	Angle
18 April	100 cm	97 cm	44.1°
19 April	100 cm	67 cm	33.8°

19 April 2016 (Margineni-ROMANIA) Latitude: 44.533°

21 April 2016 (Petroupoli-GREECE) Latitude: 38.036°



$$\text{circumference} = \frac{360^\circ \times 722 \text{ km}}{33.8^\circ - 26.5^\circ} = 35605 \text{ km}$$





# Marina di Carrara, Italy

April 2016

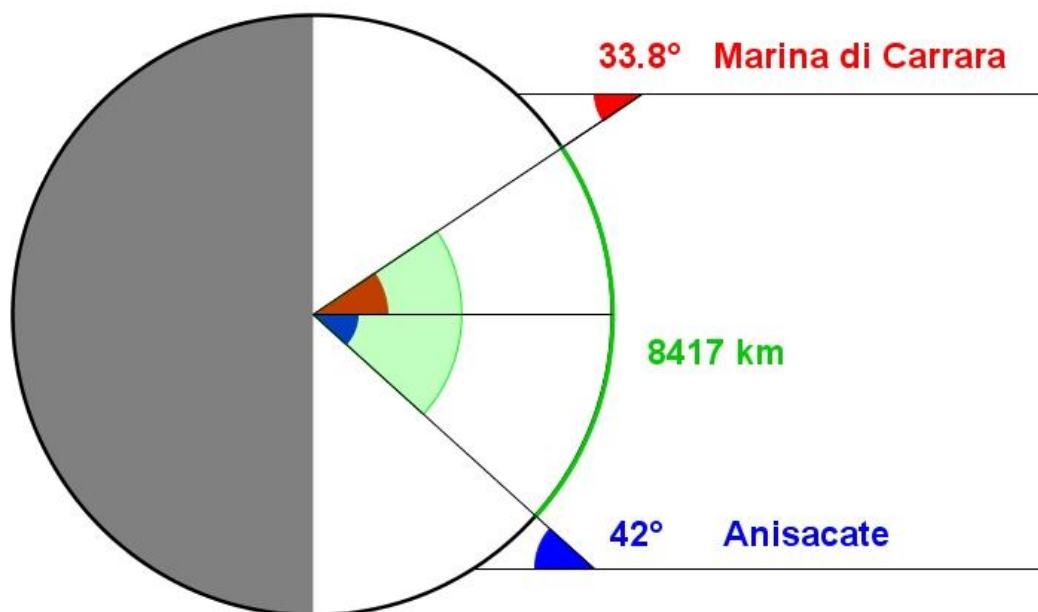


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Marina di Carrara	Italy	M Buonarroti primary school	44.045	10.031

Date	Gnomon	Shadow	Angle
15 April	100 cm	67 cm	33.8°

15 April 2016 (Marina di Carrara-ITALY) Latitude: 44.045

15 April 2016 (Anisacate-ARGENTINA) Latitude: -31.717




$$\text{circumference} = \frac{360^\circ \times 8417 \text{ km}}{33.8^\circ + 42^\circ} = 39975 \text{ km}$$



# Merlara, Italy

April 2016



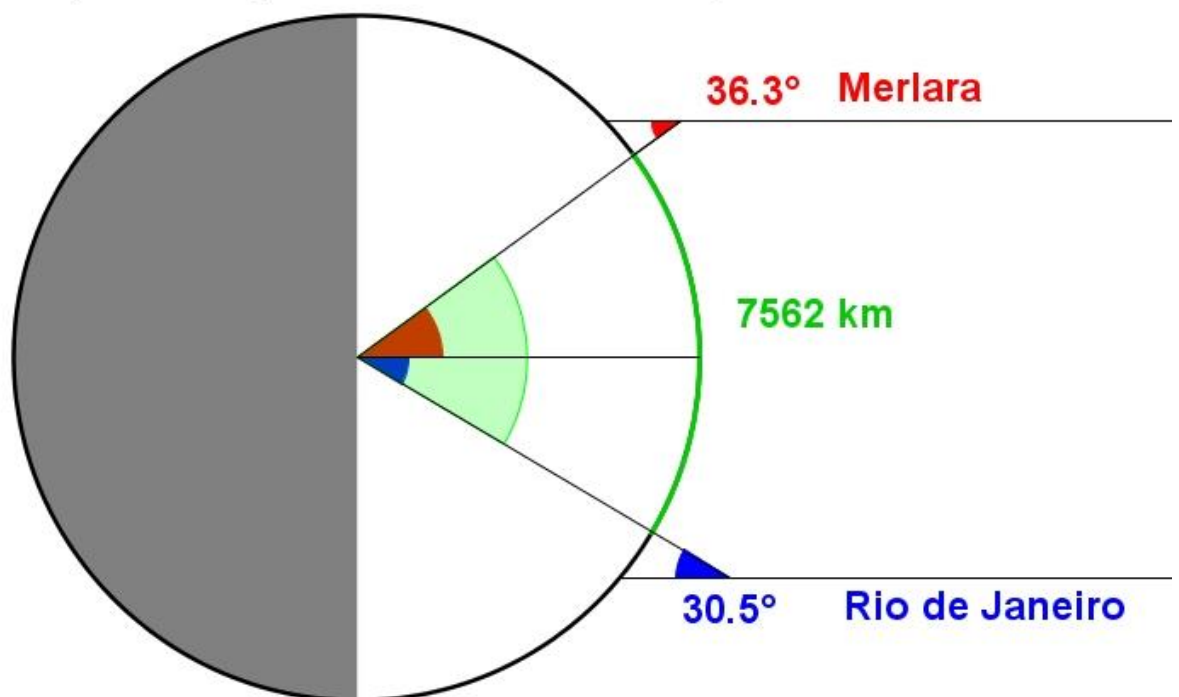
Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Mertara	Italy	Lower Secondary School "Dante Alighieri"	45.163	11.446

Date	Gnomon	Shadow	Angle
11 April	100 cm	73.5 cm	36.3°

11 April 2016 (Merlara-ITALY) Latitude: 45.163

09 April 2016 (Rio de Janeiro-BRAZIL) Latitude: -22.906



$$\text{circumference} = \frac{360^\circ \times 7562 \text{ km}}{36.3^\circ + 30.5^\circ} = 40753 \text{ km}$$



# Nafplion, Greece

April 2016

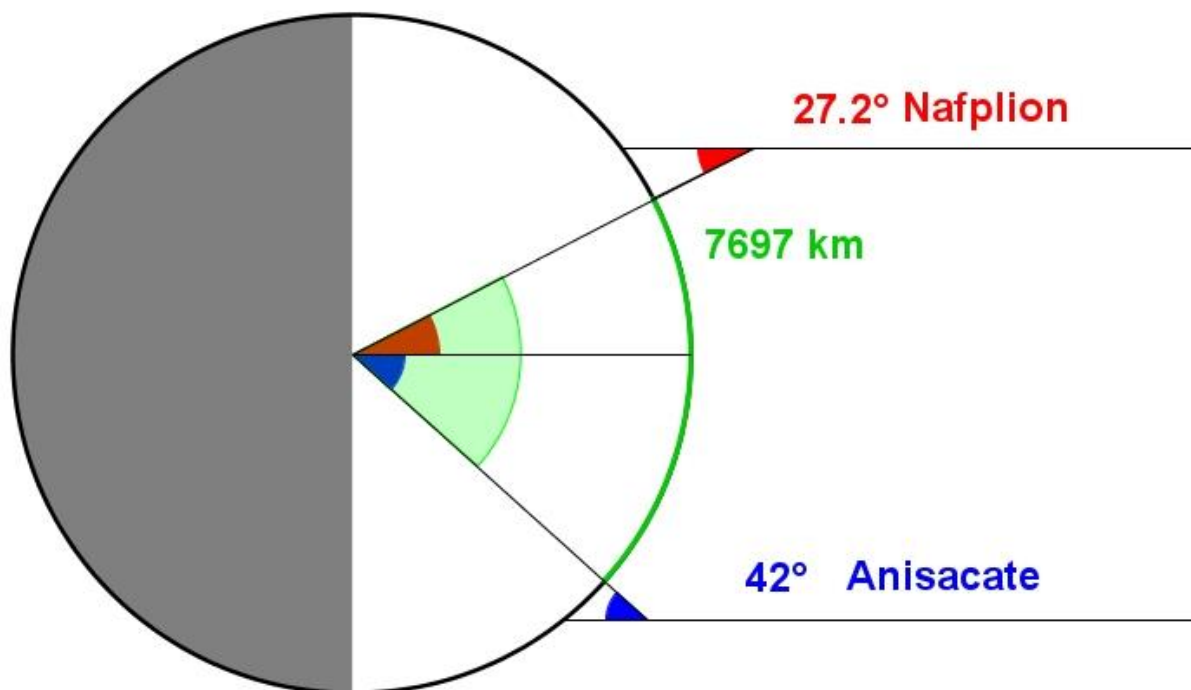


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Nafplion	Greece	Panhellenic conference of Informatic	37.564	22.794

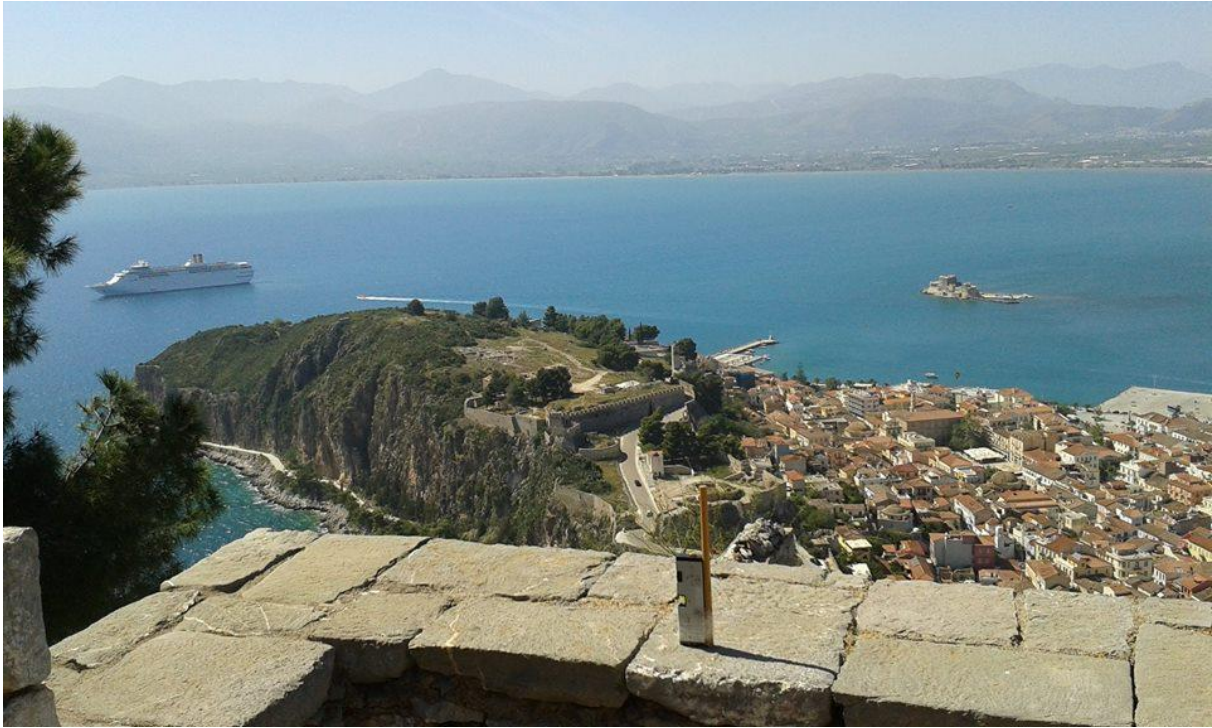
Date	Gnomon	Shadow	Angle
16 April	30.4 cm	15.6 cm	27.2°
17 April	30.4 cm	15.1 cm	26.4°

16 April 2016 (Nafplion-GREECE) Latitude: 37.564 °

15 April 2016 (Anisacate-ARGENTINA) Latitude: -31.717 °




$$\text{circumference} = \frac{360^\circ \times 7697 \text{ km}}{27.2^\circ + 42^\circ} = 40042 \text{ km}$$



# Neoric, Croatia

April 2016

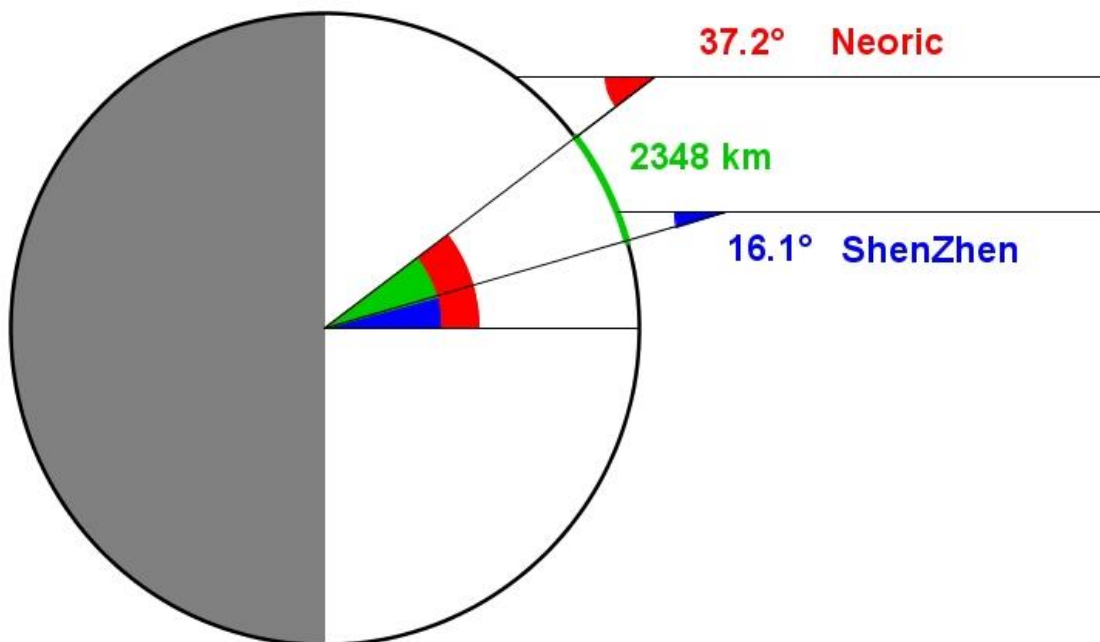


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Neoric	Croatia	OŠ Neorić - Sutina	43.686	16.520

Date	Gnomon	Shadow	Angle
04 April	100 cm	76 cm	37.2°
05 April	100 cm	81 cm	39°
06 April	100 cm	76 cm	37.2°
11 April	100 cm	72 cm	35.8°
11 Aprnt	52.3 cm	29.6 cm	29.5°
21 April	52.3 cm	26.1 cm	26.5°
22 April	52.3 cm	25 cm	25.5°

04 April 2016 (Neoric-CROATIA) Latitude: 43.686°

04 April 2016 (ShenZhen-CHINA) Latitude: 22.549°



$$\text{circumference} = \frac{360^\circ \times 2348 \text{ km}}{37.2^\circ - 16.1^\circ} = 40061 \text{ km}$$






# Petroupoli, Greece

April 2016

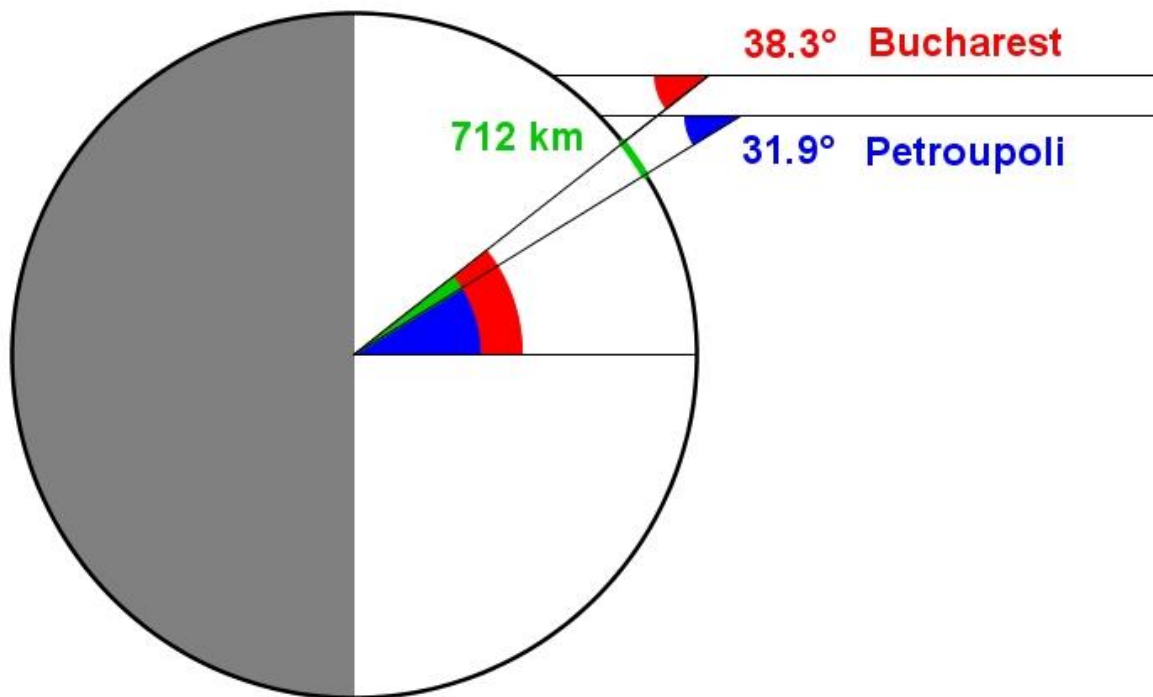


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Petroupoli	Greece	4o Junior High School	38.036	23.674

Date	Gnomon	Shadow	Angle
01 April	52.3 cm	34.1 cm	33.1°
04 April	52.3 cm	32.6 cm	31.9°
07 April	52.3 cm	31.4 cm	31°
11 April	52.3 cm	29.6 cm	29.5°
21 April	52.3 cm	26.1 cm	26.5°
22 April	52.3 cm	25 cm	25.5°

04 April 2016 (Bucharest-ROMANIA) Latitude: 44.443°

04 April 2016 (Petroupoli-GREECE) Latitude: 38.036°



$$\text{circumference} = \frac{360^\circ \times 712 \text{ km}}{38.3^\circ - 31.9^\circ} = 40050 \text{ km}$$



# Piraeus, Greece

April 2016

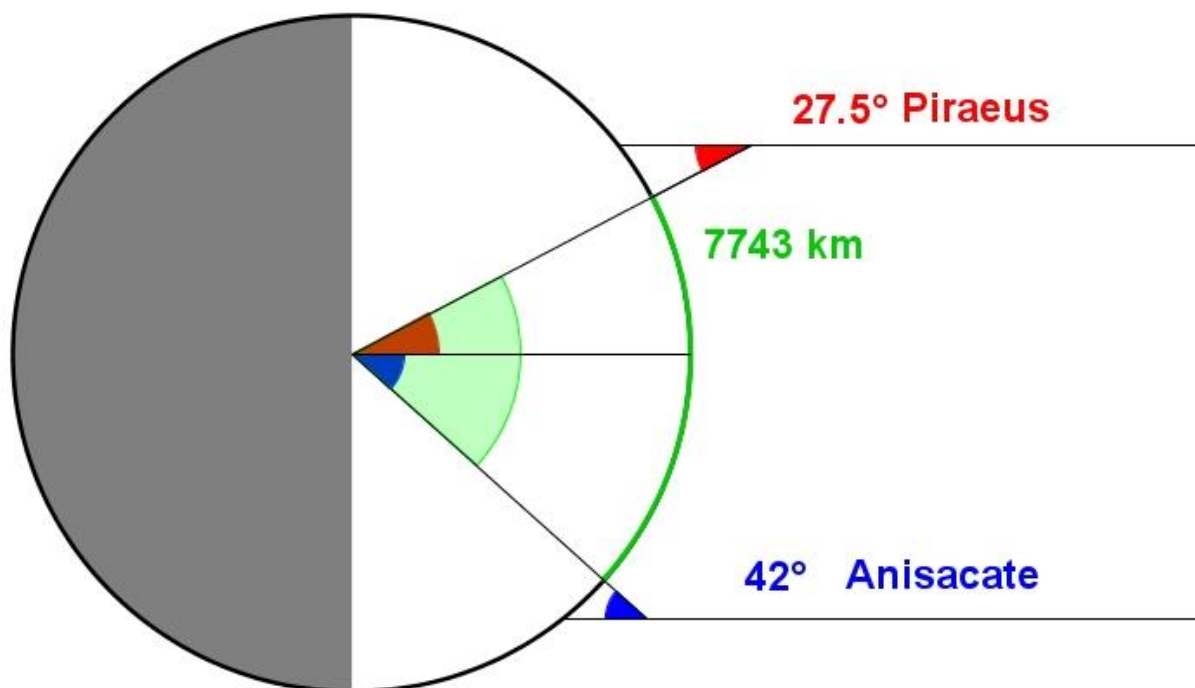


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Piraeus	Greece	2nd Junior High School of Korydallos	37.977	23.655

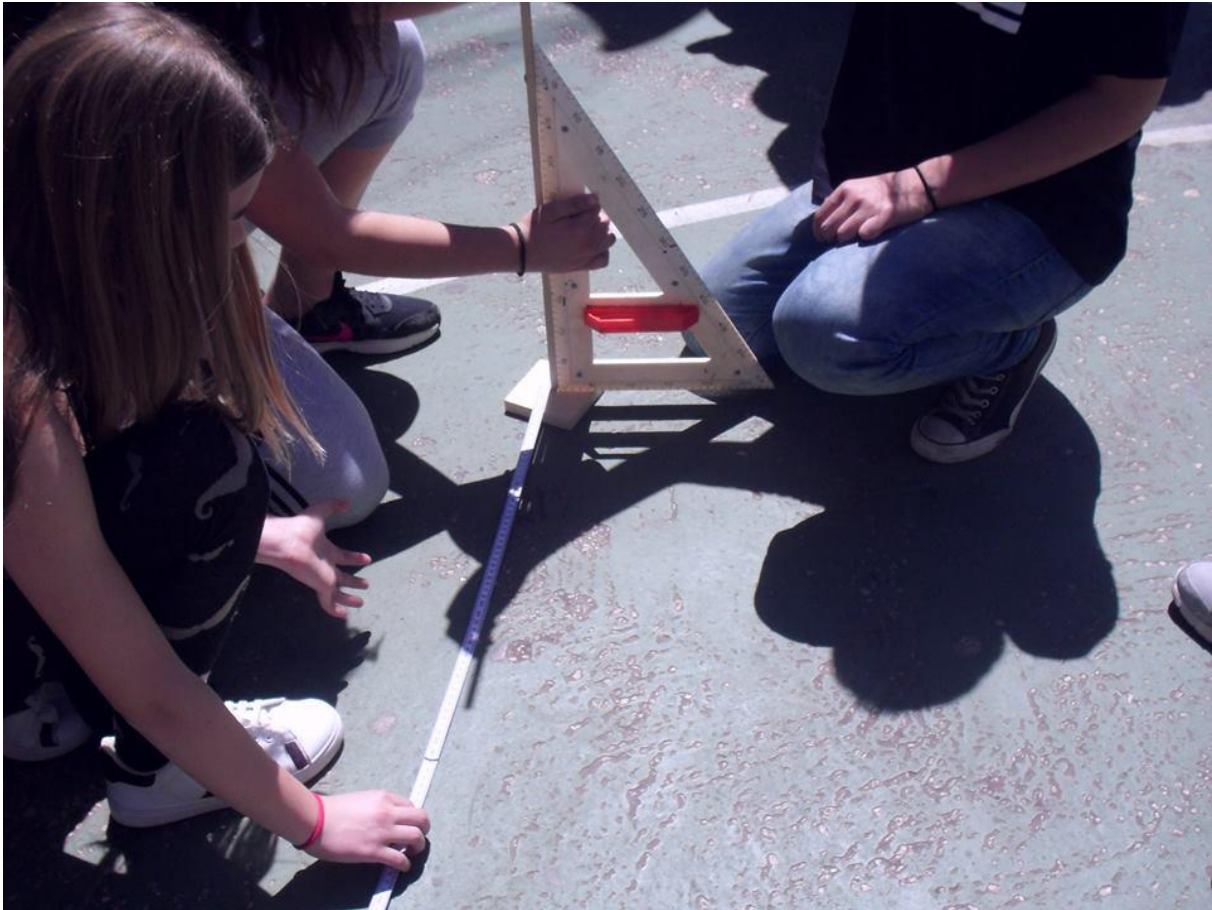
Date	Gnomon	Shadow	Angle
06 April	100 cm	59 cm	30.5°
15 April	100 cm	52 cm	27.5°

15 April 2016 (Piraeus-GREECE) Latitude: 37.977 °

15 April 2016 (Anisacate-ARGENTINA) Latitude: -31.717 °




$$\text{circumference} = \frac{360^\circ \times 7743 \text{ km}}{27.5^\circ + 42^\circ} = 40108 \text{ km}$$



# Pylos, Greece

April 2016

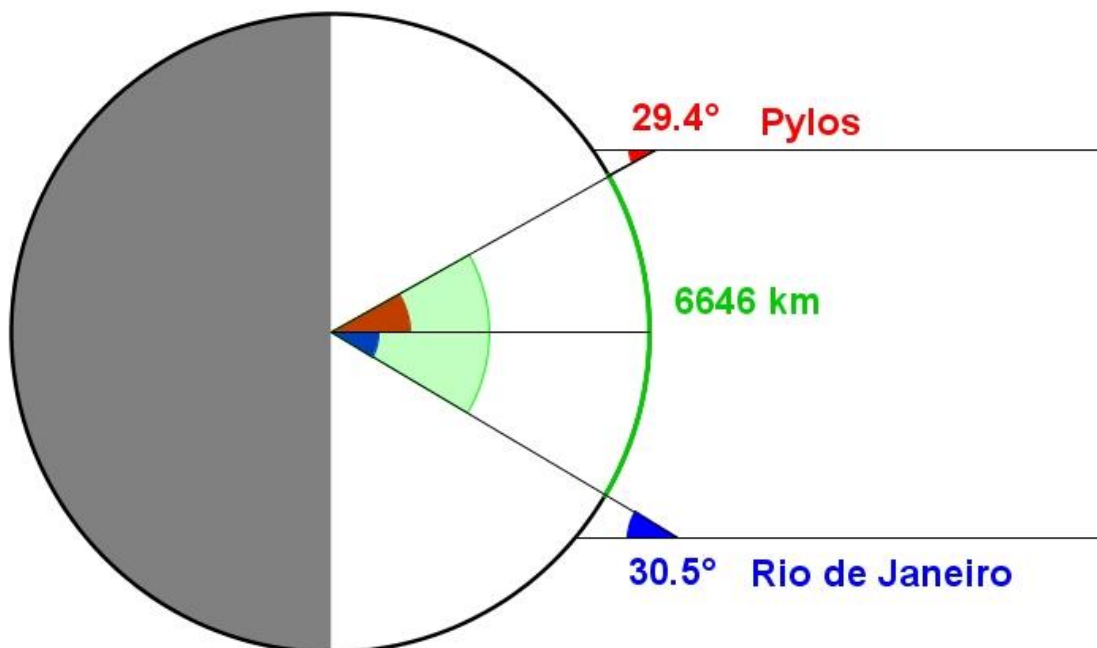


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Pylos	Greece	1st Kindergarten of Pylos	36.911	21.694

Date	Gnomon	Shadow	Angle
11 April	42 cm	23.7 cm	29.4°
15 April	36.5 cm	20.0 cm	28.7°

11 April 2016 (Pylos-GREECE) Latitude: 36.911

11 April 2016 (Rio de Janeiro-BRASIL) Latitude: -22.906




$$\text{circumference} = \frac{360^\circ \times 6646 \text{ km}}{29.4^\circ + 30.5^\circ} = 39943 \text{ km}$$



# Rio de Janeiro CENOM, Brazil

April 2016

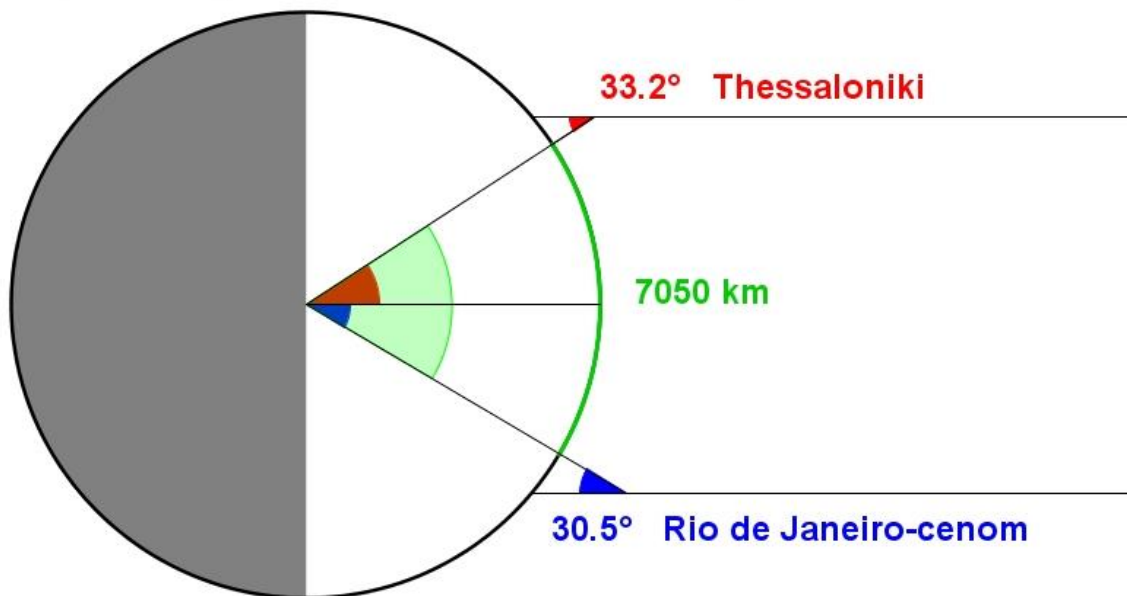


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	Centro Educacional Nosso Mundo	-22.890	-43.317

Date	Gnomon	Shadow	Angle
01 April	100 cm	-54 cm	-28.4°
08 April	100 cm	-59 cm	-30.5°
12 April	100 cm	-64 cm	-32.6°

07 April 2016 (Thessaloniki-GREECE) Latitude: 40.562

08 April 2016 (Rio de Janeiro-cenom-BRASIL) Latitude: -22.89



$$\text{circumference} = \frac{360^\circ \times 7050 \text{ km}}{33.2^\circ + 30.5^\circ} = 39843 \text{ km}$$





# Rio de Janeiro MAST, Brazil

April 2016

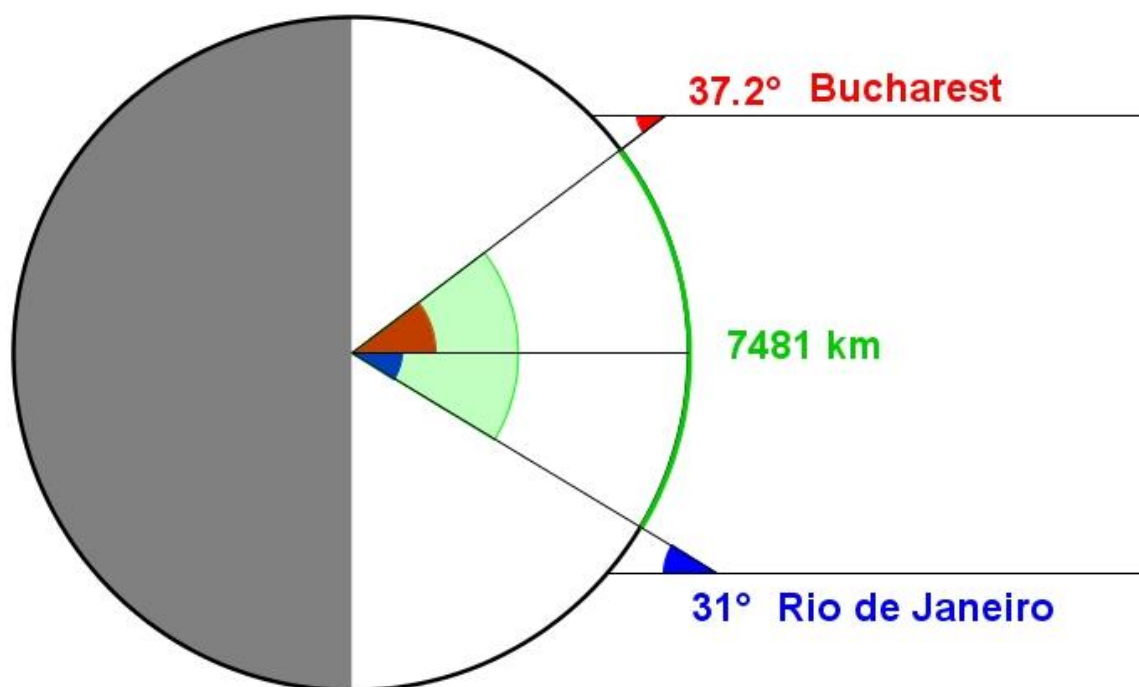


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	MAST - Museu de Astronomia e Ciências	-22.896	-43.224

Date	Gnomon	Shadow	Angle
07 April	200 cm	-120 cm	-31.0°

7 April 2016 (Bucharest-ROMANIA) Latitude: 44.443

7 April 2016 (Rio de Janeiro -BRAZIL) Latitude: -22.896




$$\text{circumference} = \frac{360^\circ \times 7481 \text{ km}}{37.2^\circ + 31^\circ} = 39489 \text{ km}$$



# Rio de Janeiro Pedroll, Brazil

April 2016

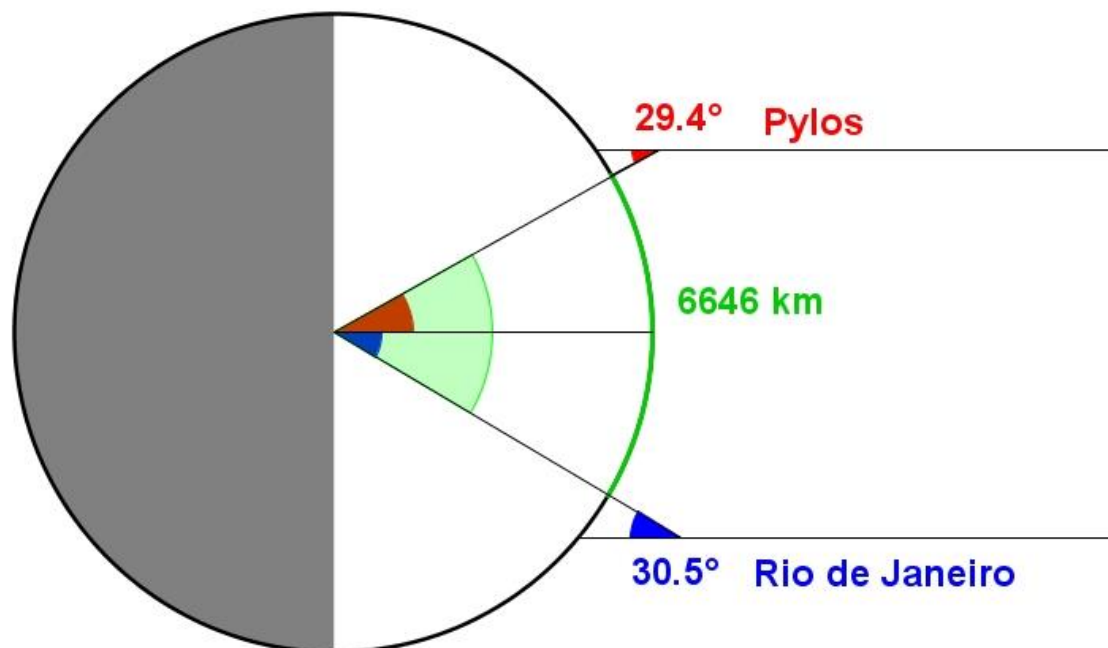


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	Colegio Pedro II	-22.906	-43.175

Date	Gnomon	Shadow	Angle
09 April	100 cm	59 cm	-30.5°

11 April 2016 (Pylos-GREECE) Latitude: 36.911

11 April 2016 (Rio de Janeiro-BRASIL) Latitude: -22.906



$$\text{circumference} = \frac{360^\circ \times 6646 \text{ km}}{29.4^\circ + 30.5^\circ} = 39943 \text{ km}$$



# Shenzhen, China

April 2016

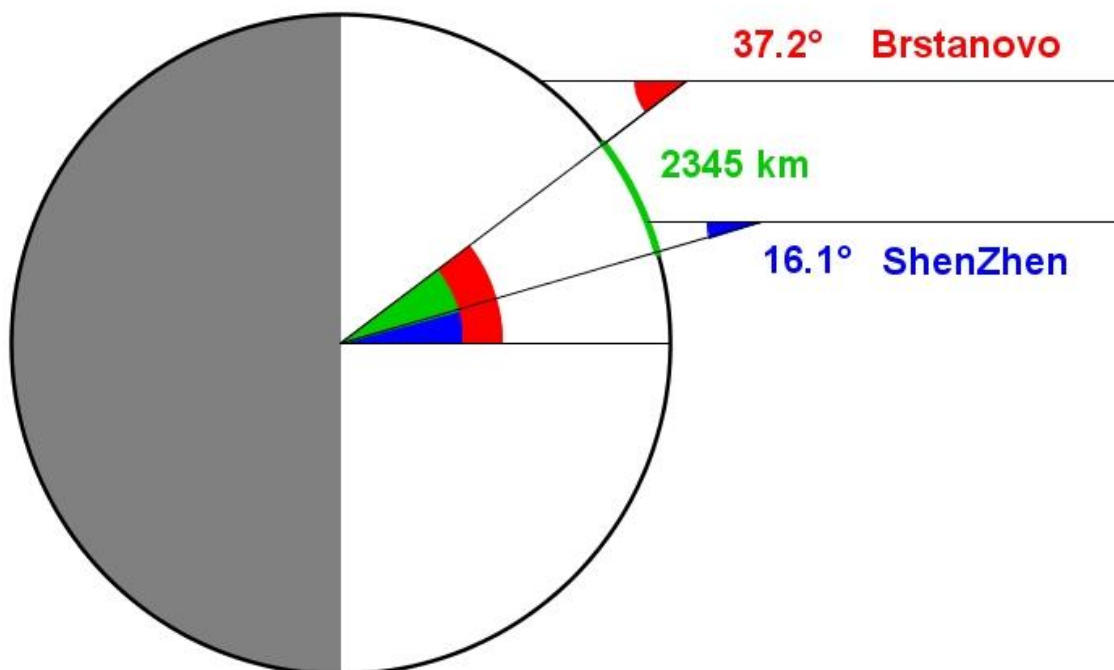


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Shenzhen	China	荔園小學南校區	22.549	114.092

Date	Gnomon	Shadow	Angle
04 April	50 cm	14.4 cm	16.1°

04 April 2016 (Brstanovo-CROATIA) Latitude: 43.658°

04 April 2016 (ShenZhen-CHINA) Latitude: 22.549°



$$\text{circumference} = \frac{360^\circ \times 2345 \text{ km}}{37.2^\circ - 16.1^\circ} = 40009 \text{ km}$$



# Thessaloniki, Greece

April 2016

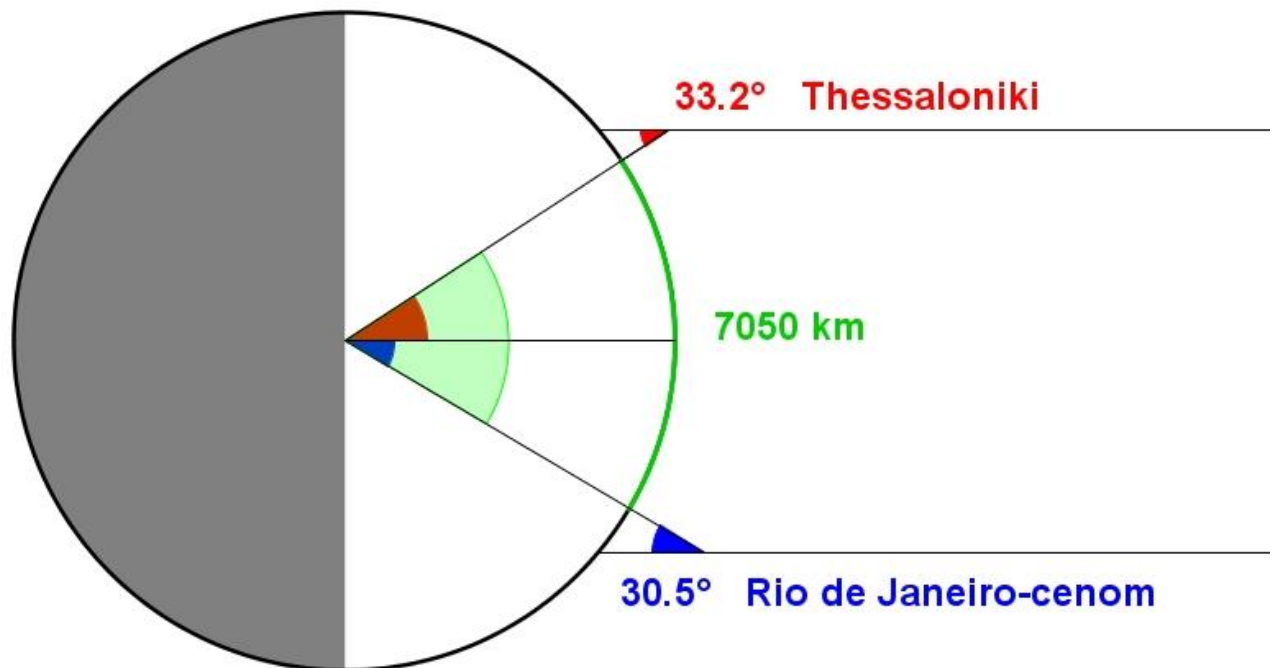


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Thessaloniki	Greece	NOESIS Science Center and Technology Museum	40.562	22.995

Date	Gnomon	Shadow	Angle
07 April	100 cm	65.4 cm	33.2°

07 April 2016 (Thessaloniki-GREECE) Latitude: 40.562

08 April 2016 (Rio de Janeiro-cenom-BRASIL) Latitude: -22.89



$$\text{circumference} = \frac{360^\circ \times 7050 \text{ km}}{33.2^\circ + 30.5^\circ} = 39843 \text{ km}$$





