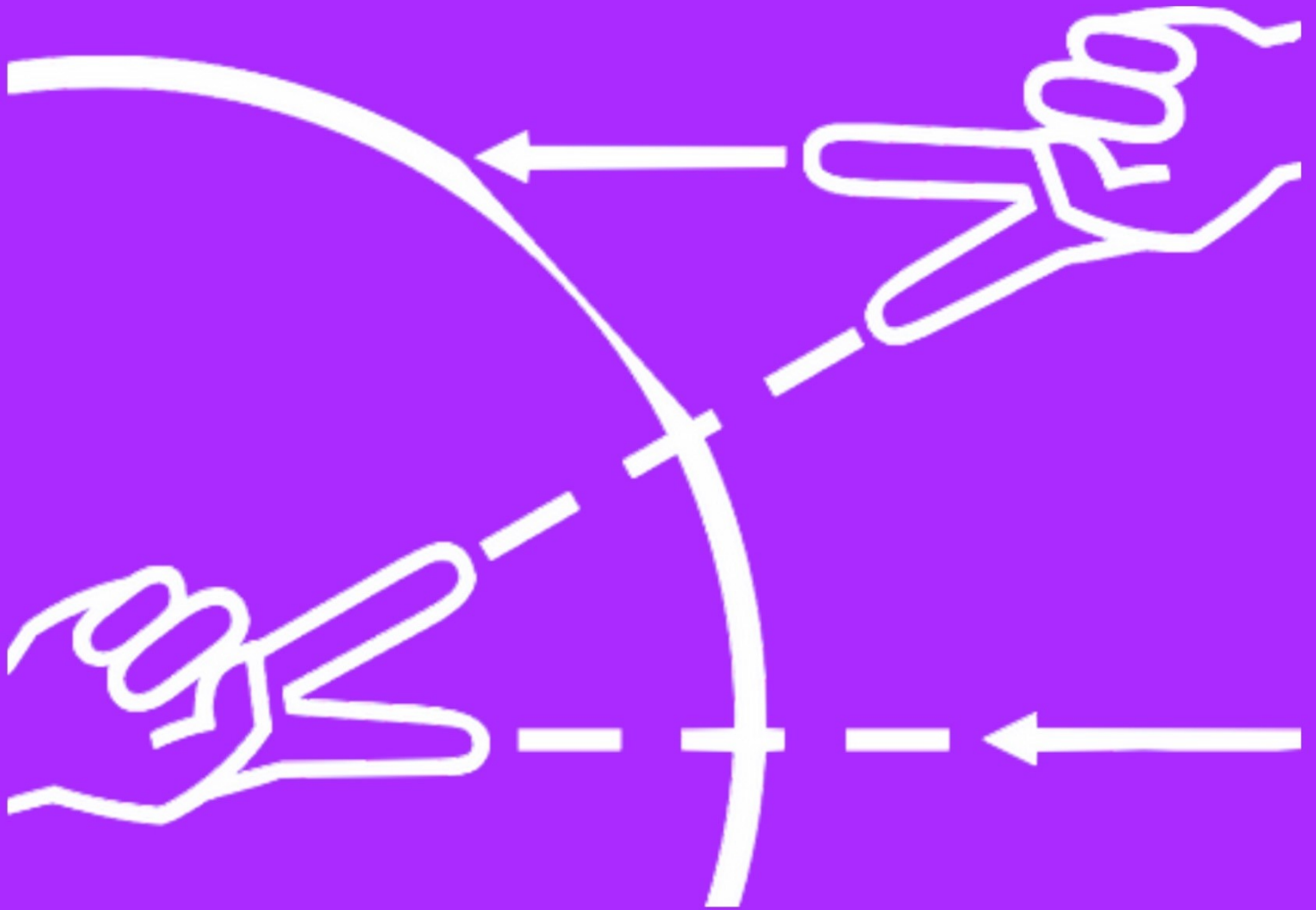


Eratostrhenes



4 Continents

8 Countries

17 Schools

52 Measures

4 Continents

8 Countries

17 Schools

52 Measures

ARGENTINA (1)

Alta Gracia

BRAZIL (5)

Itajubá, Piranguinho, Rio de Janeiro (3)

COLOMBIA (1)

Guarne

FRANCE (1)

Lafrançaise

GREECE (3)

Aigio, Athens, Ioannina

INDIA(1)

Dholpur

ROMANIA (4)

Busteni, Dohoroi, Margineni, Pogana

TUNISIA (1)

Bizerte

Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Aigio	Greece	1st High School of Aigio	38.252	22.079
	Alta Gracia	Argentina	Fundación Caminos de Anisacate	-31.659	-64.417
	Athens	Greece	Experimental College Agion Anargyron	38.027	23.726
	Bizerte	Tunisia	Ecole Primaire Raouabi	37.284	9.868
	Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535
	Dholpur	India	GSSS Poothpura	26.770	77.526
	Dorohoi	Romania	Grigore Ghica National College	47.953	26.394
	Guarne	Colombia	Grupo Astrofanáticos	6.274	-75.449
	Ioannina	Greece	4th Junior High School of Petroupoli	39.676	20.853
	Itajubá	Brazil	Universidade Federal de Itajubá	-22.415	-45.449
	Lafrançaise	France	Collège Antonin Perbosc	44.127	1.237
	Mărgineni	Romania	Gh. Popescu School	44.533	24.554
	Piranguinho	Brazil	Universidade Federal de Itajubá	-22.411	-45.535
	Pogana	Romania	Scoala Gimnaziala Nr.1 Pogana	46.313	27.575
	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
	Rio de Janeiro	Brazil	Cidade das Artes	-22.999	-43.368

Aigio, Greece

November 2018



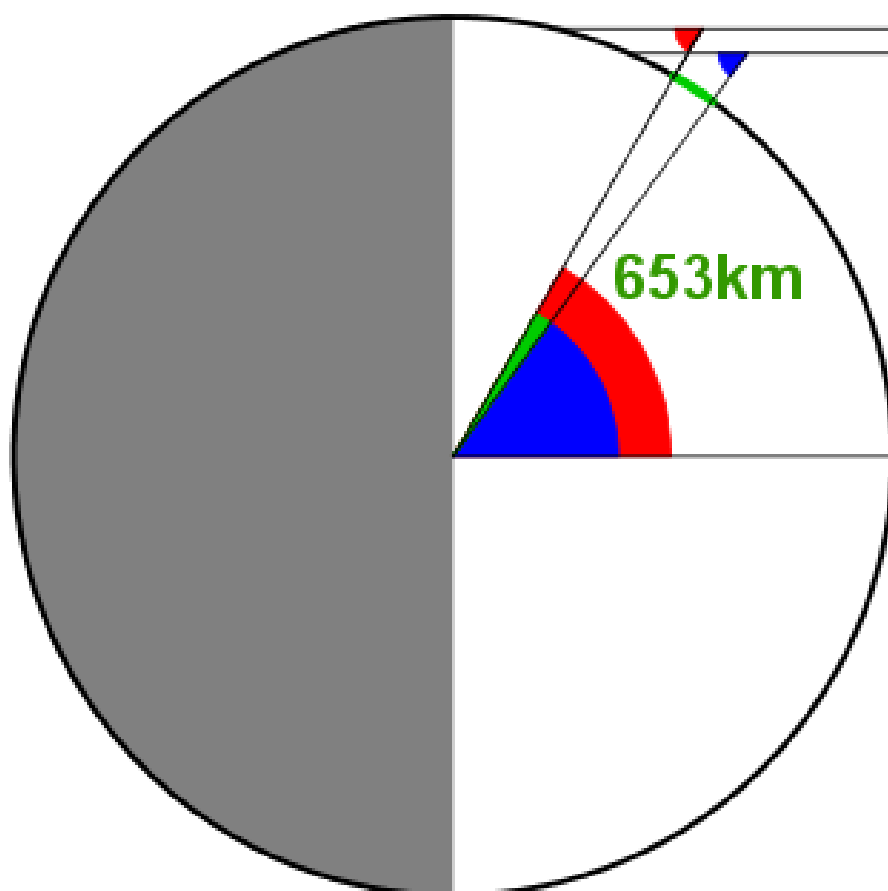
Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Aigio	Greece	1st High School of Aigio	38.252	22.079

Date	Gnomon	Shadow	Angle
05 November 2018	30 cm	41.2 cm	53.9 °
06 November 2018	30 cm	41.6 cm	54.2 °
13 November 2018	30 cm	44.8 cm	56.2 °

05/11/2018 (Lafrançaise-France) Latitude: 44.127°

05/11/2018 (Aigio-Greece) Latitude: 38.252°

59.8° Lafrançaise



53.9° Aigio

$$\text{circumference} = \frac{360^\circ \times 653\text{km}}{59.8^\circ - 53.9^\circ} = 39844 \text{ km}$$



Alta Gracia, Argentina

November 2018

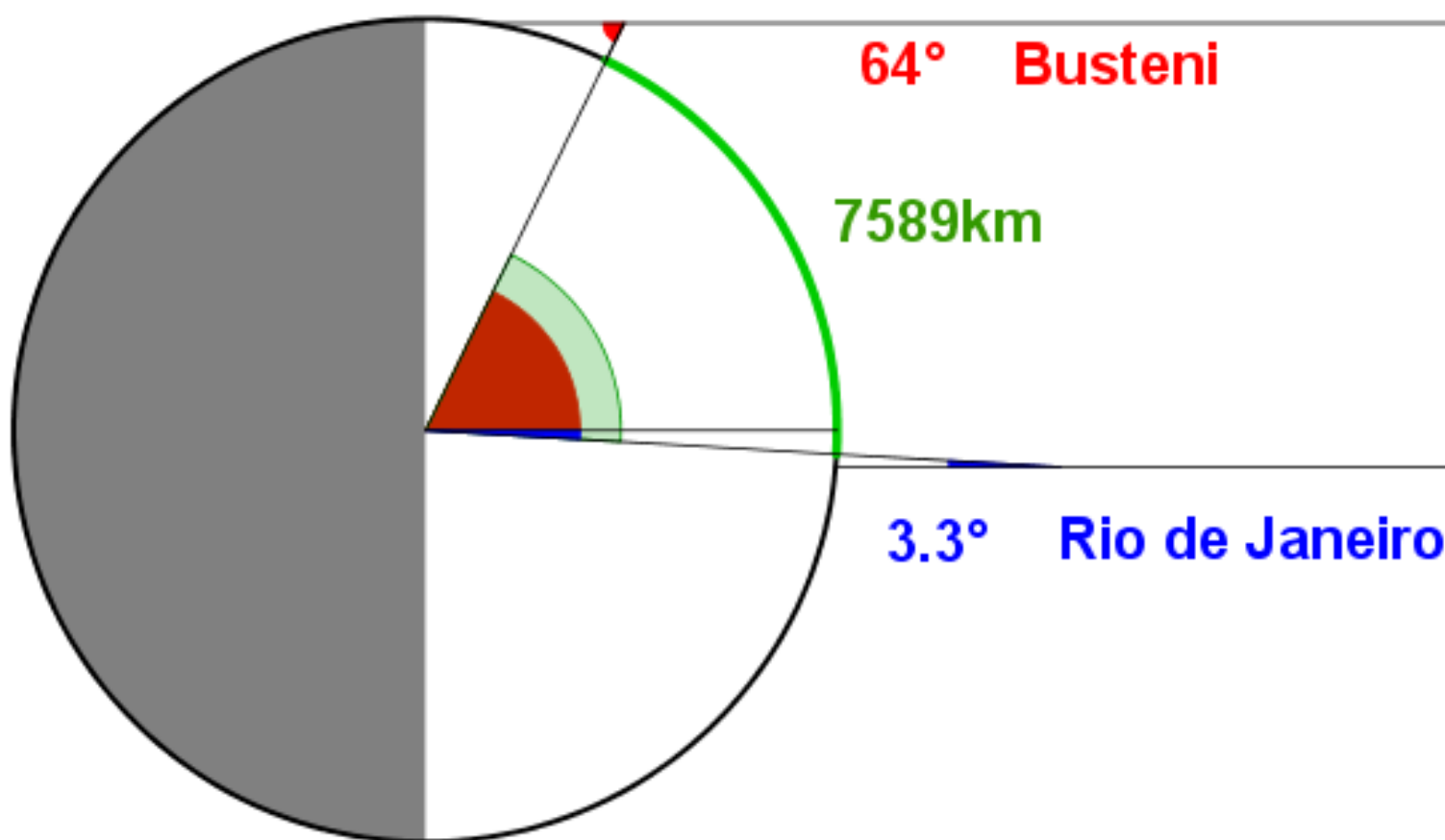


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Alta Gracia	Argentina	Fundación Caminos de Anisacate	-31.659	-64.417

Date	Gnomon	Shadow	Angle
14 November 2018	39.0 cm	-9.0 cm	-13.0 °
21 November 2018	39.0 cm	-7.6 cm	-11.0 °

15/11/2018 (Busteni-Romania) Latitude: 45.416°

15/11/2018 (Rio de Janeiro-Brazil) Latitude: -22.896°



$$\text{circumference} = \frac{360^\circ \times 7589\text{km}}{64^\circ + 3.3^\circ} = 40595 \text{ km}$$



Athens, Greece

November 2018

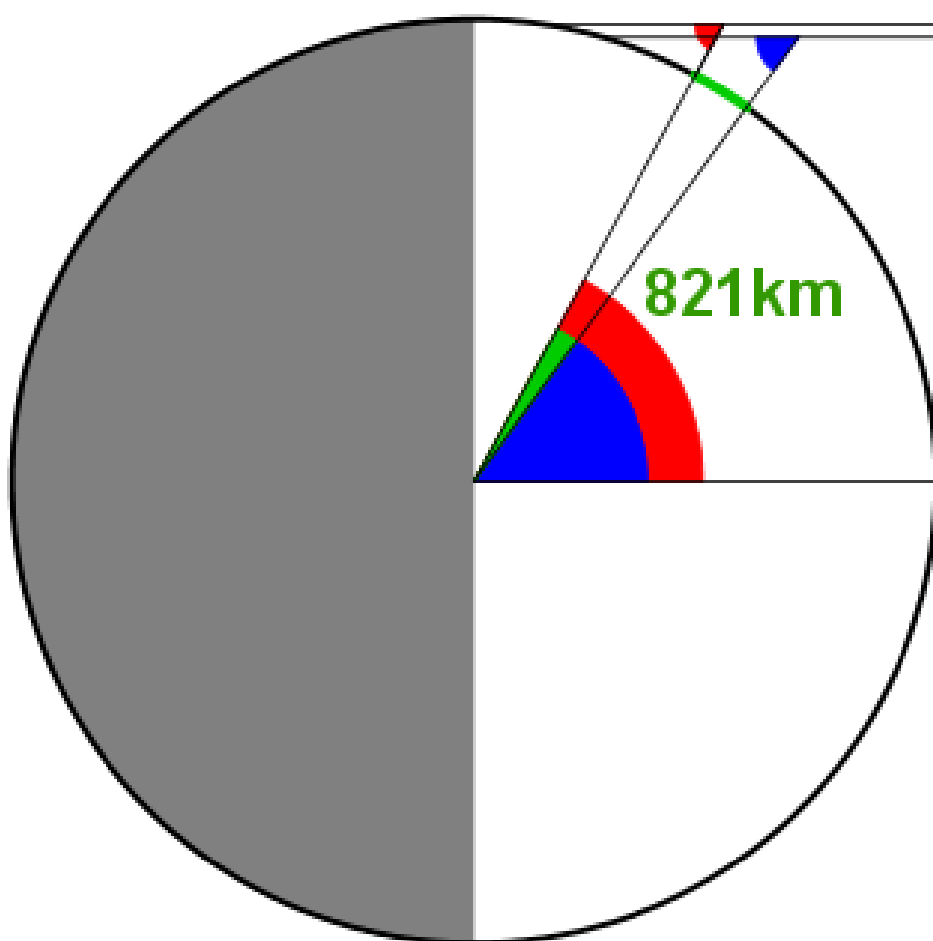


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Athens	Greece	Experimental College Agion Anargyron	38.027	23.726

Date	Gnomon	Shadow	Angle
05 November 2018	49 cm	67.3 cm	53.9 °

05/11/2018 (Busteni-Romania) Latitude: 45.416°

05/11/2018 (Athens-Greece) Latitude: 38.027°
61.4° Busteni



$$\text{circumference} = \frac{360^\circ \times 821\text{km}}{61.4^\circ - 53.9^\circ} = 39408 \text{ km}$$



Bizerte, Tunisia

November 2018



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Bizerte	Tunisia	Ecole Primaire Raouabi	37.284	9.868

Date	Gnomon	Shadow	Angle
05 November 2018	27 cm	38 cm	54.6 °
12 November 2018	27 cm	38 cm	54.6 °
13 November 2018	50.0 cm	74.0 cm	56.0 °

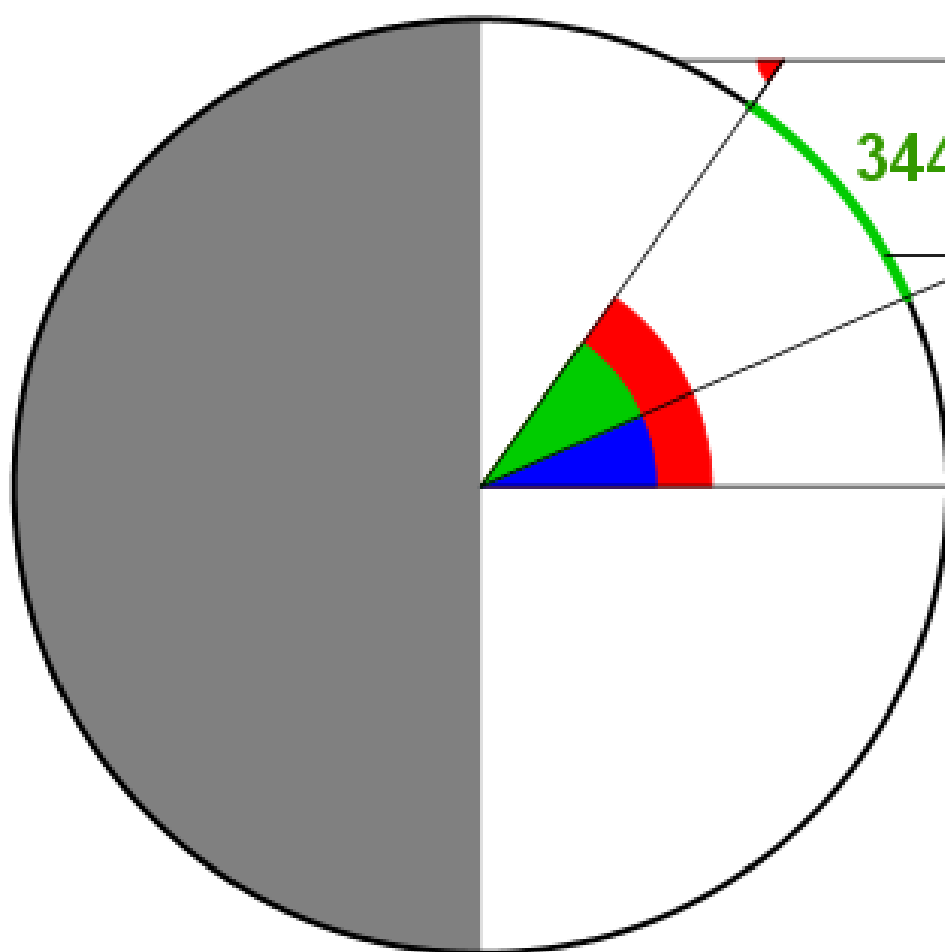
12/11/2018 (Bizerte-Tunisia) Latitude: 37.284°

12/11/2018 (Guarne-Colombia) Latitude: 6.274°

54.6° Bizerte

3445km

23.9° Guarne



$$\text{circumference} = \frac{360^\circ \times 3445\text{km}}{54.6^\circ - 23.9^\circ} = 40397 \text{ km}$$



Busteni, Romania

November 2018

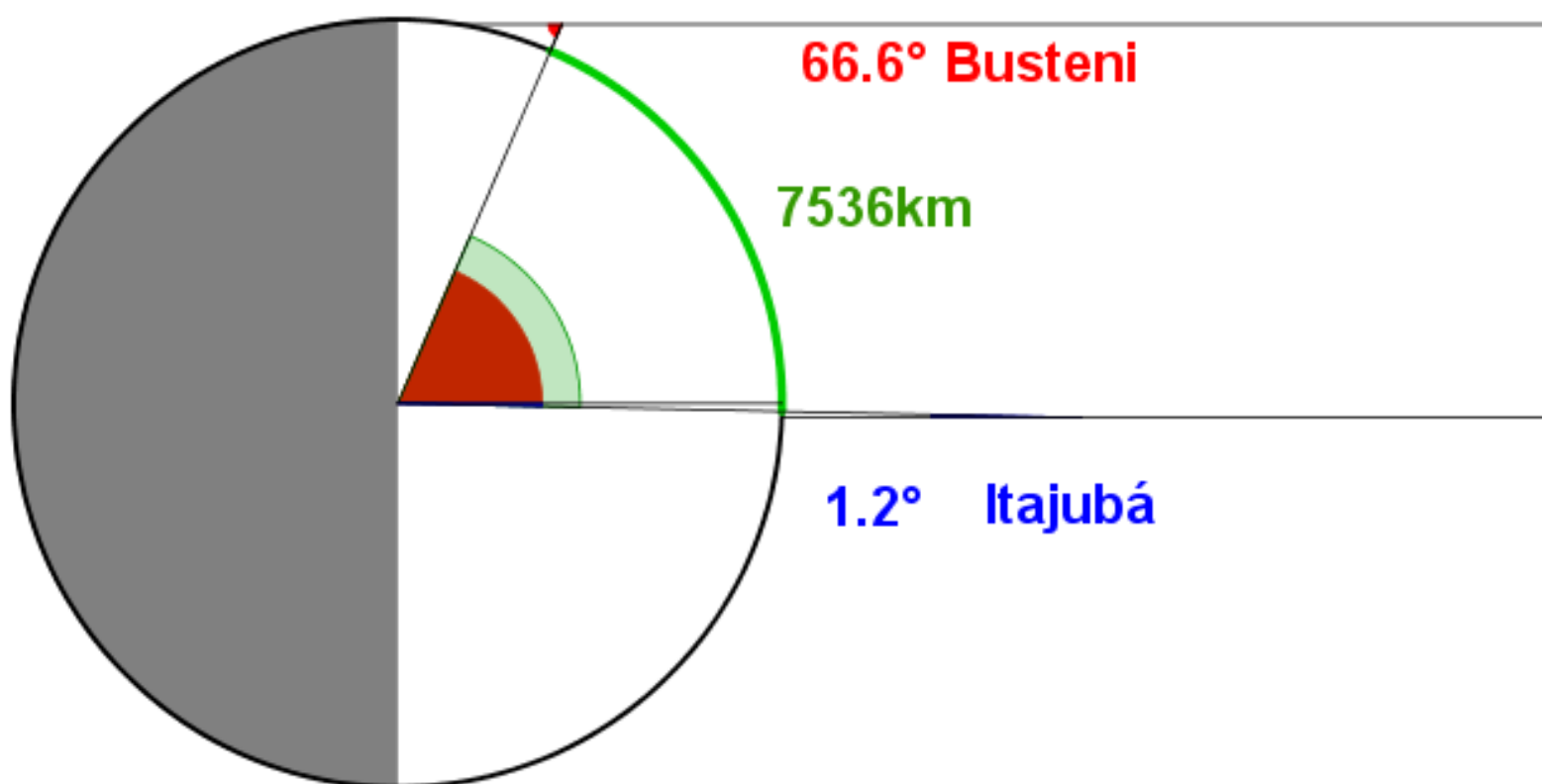


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535

Date	Gnomon	Shadow	Angle
05 November 2018	42.6 cm	78 cm	61.4 °
06 November 2018	48.5 cm	90 cm	61.7 °
08 November 2018	50.0 cm	95.0 cm	62.2 °
12 November 2018	50 cm	99.4 cm	63.3 °
14 November 2018	50 cm	101.6 cm	63.8 °
15 November 2018	50.0 cm	102.7 cm	64.0 °
20 November 2018	23.0 cm	49.8 cm	65.2 °
26 November 2018	50.0 cm	114.4 cm	66.4 °
27 November 2018	50.0 cm	115.5 cm	66.6 °
29 November 2018	50.0 cm	117.2 cm	66.9 °

27/11/2018 (Busteni-Romania) Latitude: 45.416°

27/11/2018 (Itajubá-Brazil) Latitude: -22.415°



$$\text{circumference} = \frac{360^\circ \times 7536\text{km}}{66.6^\circ + 1.2^\circ} = 40014 \text{ km}$$



Dholpur, India

November 2018



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Dholpur	India	GSSS Poothpura	26.770	77.526

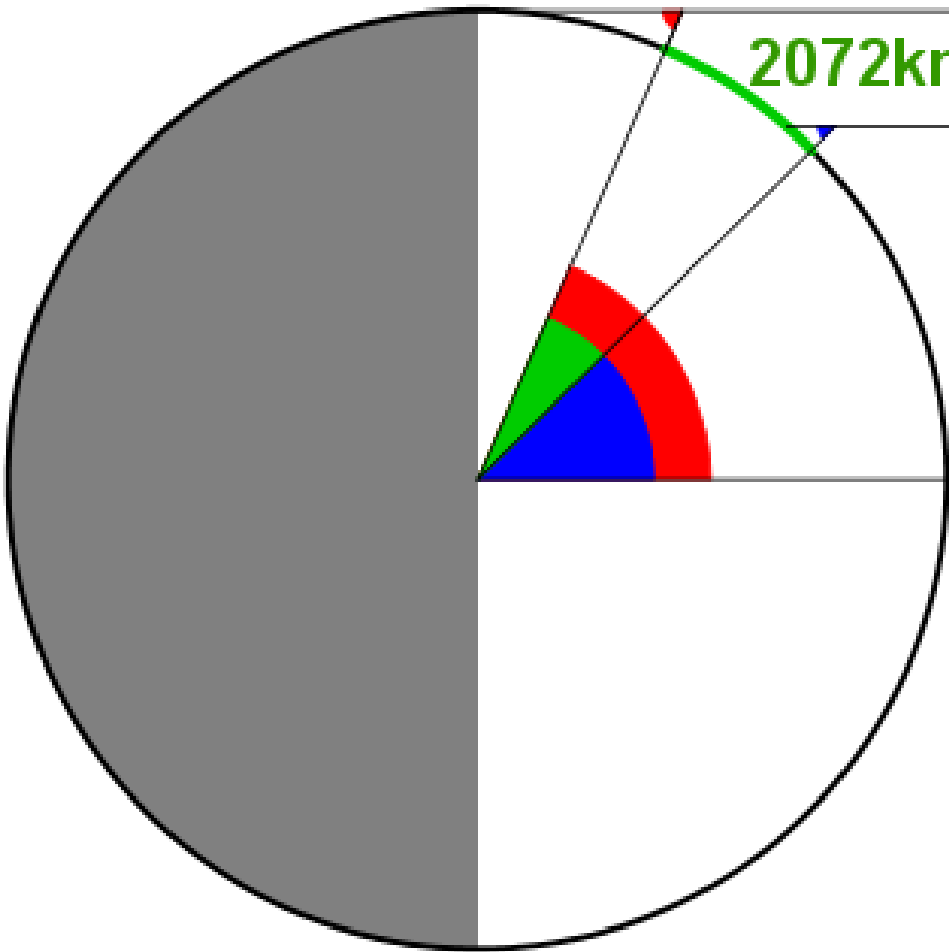
Date	Gnomon	Shadow	Angle
26 November 2018	35.5 cm	35.0 cm	44.6 °

26/11/2018 (Busteni-Romania) Latitude: 45.416°

26/11/2018 (Dholpur-India) Latitude: 26.77°

66.4° Busteni

44.6° Dholpur



circumference = $\frac{360^\circ \times 2072\text{km}}{66.4^\circ - 44.6^\circ} = 34217 \text{ km}$



Latitude: 26.770305
Longitude: 77.526377
Elevation: 213.24m
Accuracy: 4.9m
Azimuth: 79° (E)
Pitch: -3.8° (1.8°)
Time: 26-11-2018 11:53
Note: बूथ 34 व 35 राज माध्यमिक विद्यालय Puthpura Baseri Sm7

Powered by AnglerCam

Dorohoi, Romania

November 2018



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Dorohoi	Romania	Grigore Ghica National College	47.953	26.394

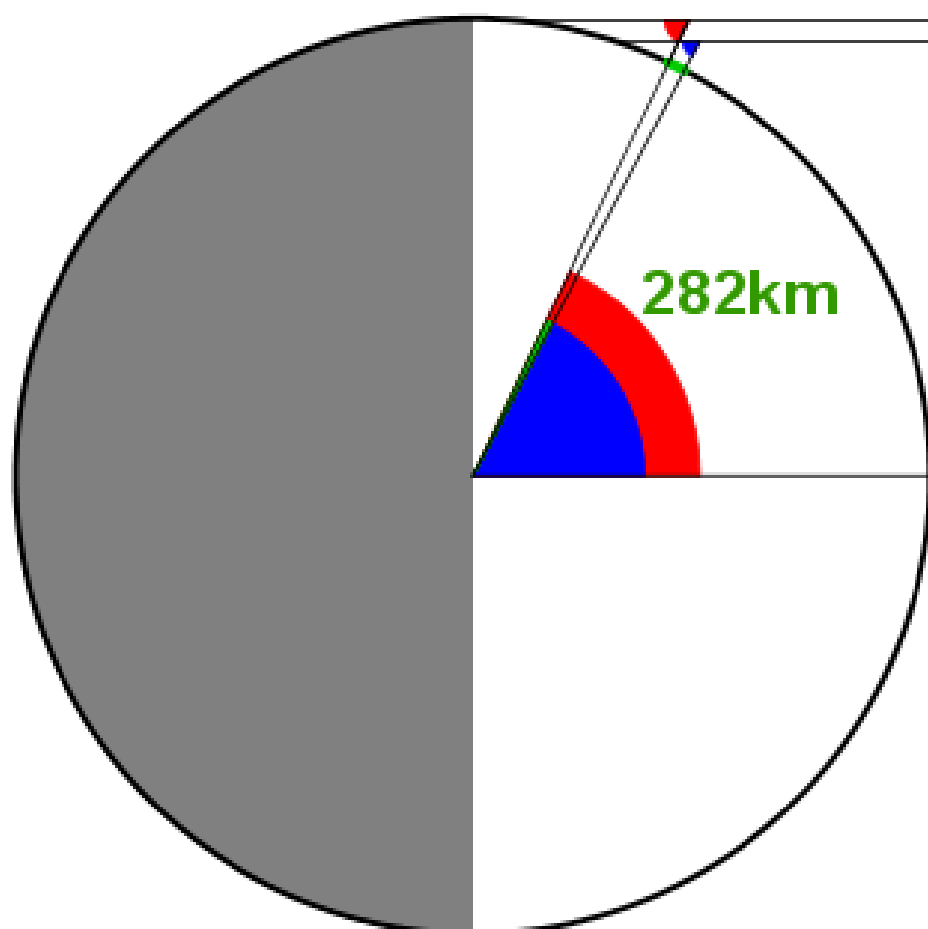
Date	Gnomon	Shadow	Angle
09 November 2018	100 cm	212 cm	-6.8 °

09/11/2018 (Dorohoi-Romania) Latitude: 47.953°

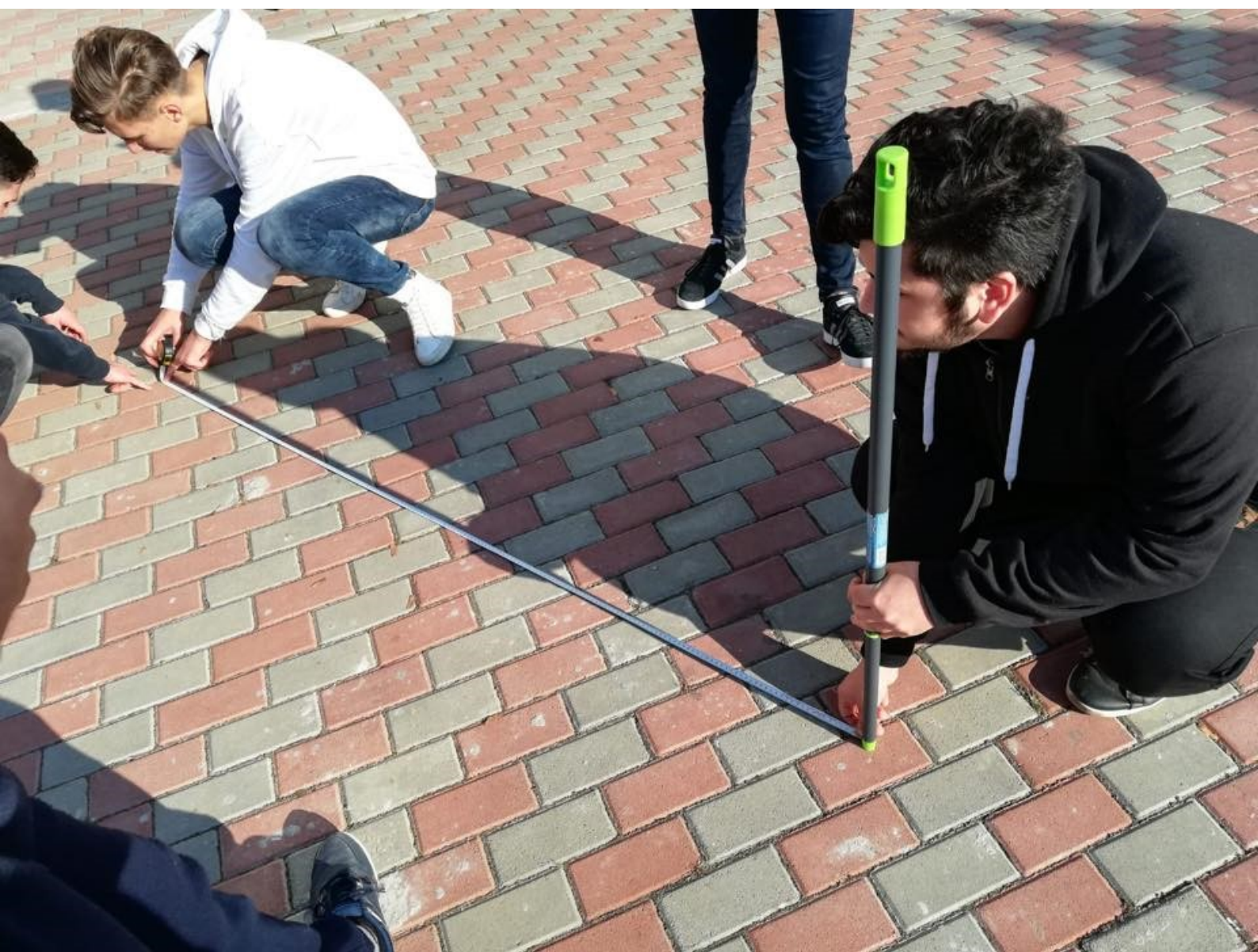
09/11/2018 (Busteni-Romania) Latitude: 45.416°

64.7° Dorohoi

62.5° Busteni



$$\text{circumference} = \frac{360^\circ \times 282\text{km}}{64.7^\circ - 62.5^\circ} = 46145 \text{ km}$$



Guarne, Colombia

November 2018

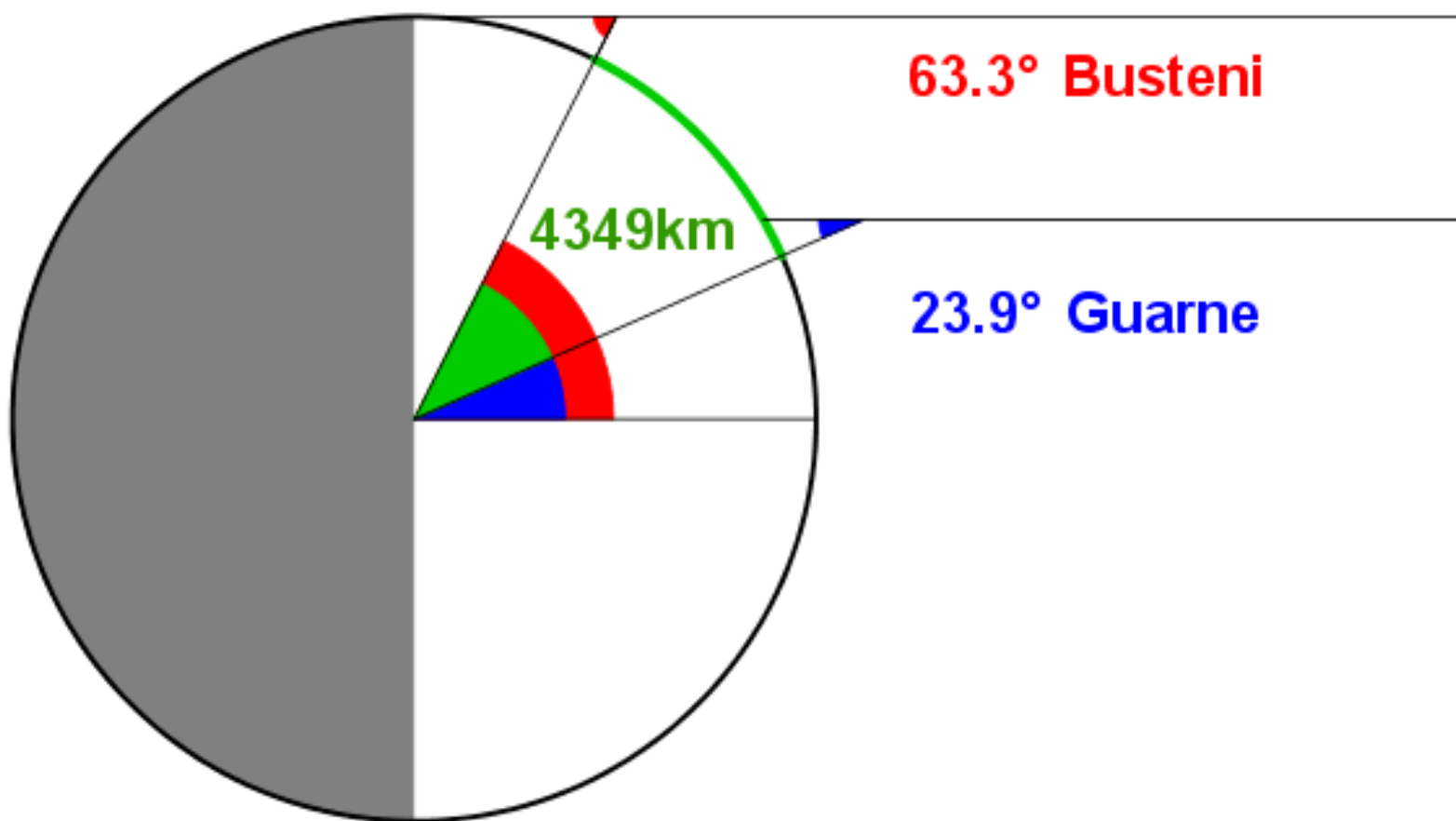


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Guarne	Colombia	Grupo Astrofanáticos	6.274	-75.449

Date	Gnomon	Shadow	Angle
12 November 2018	21.0 cm	9.3 cm	23.9 °

12/11/2018 (Busteni-Romania) Latitude: 45.416°

12/11/2018 (Guarne-Colombia) Latitude: 6.274°



$$\text{circumference} = \frac{360^\circ \times 4349\text{km}}{63.3^\circ - 23.9^\circ} = 39737 \text{ km}$$



Ioannina, Greece

November 2018

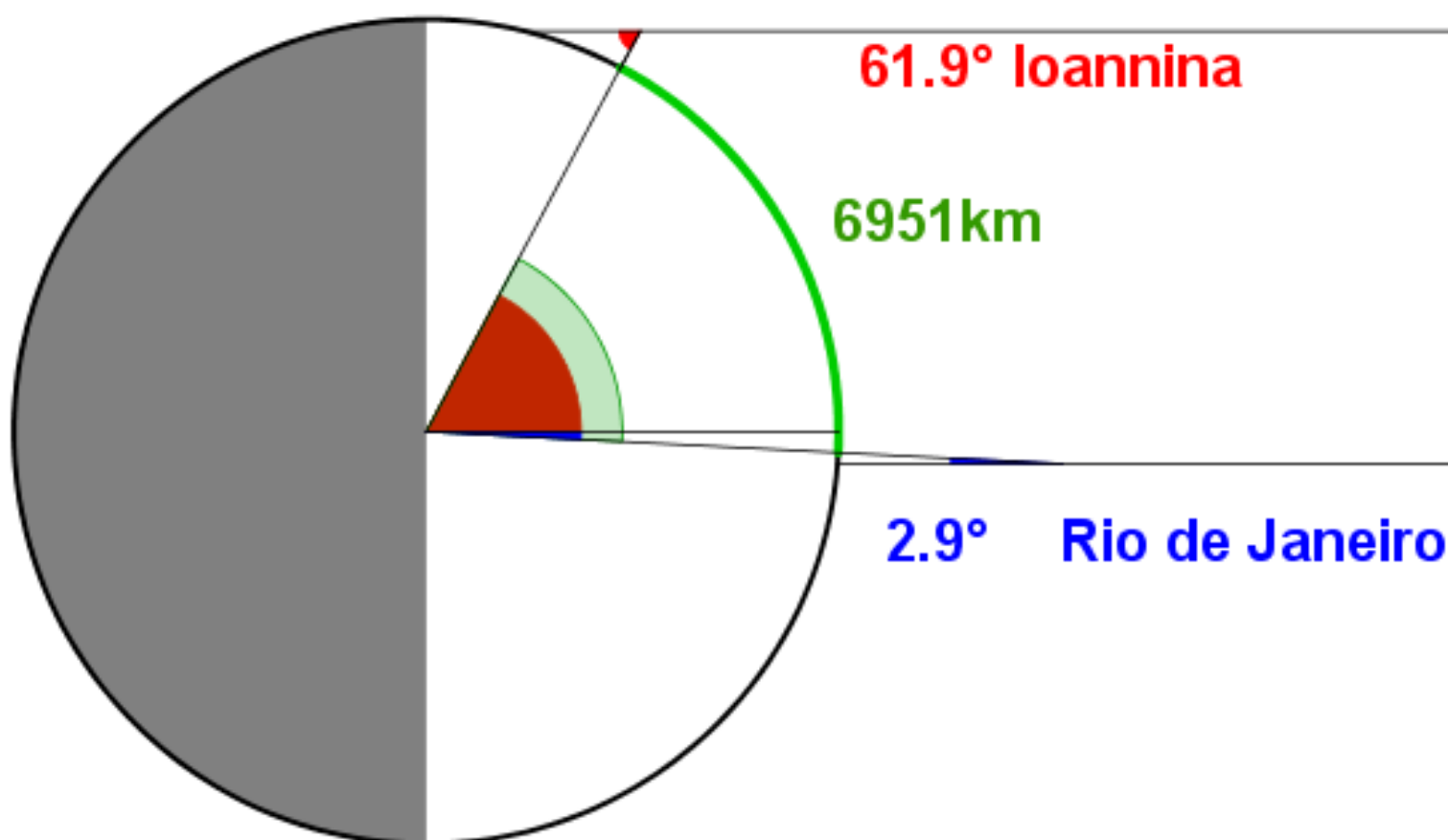


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Ioannina	Greece	4th Junior High School of Petroupoli	39.676	20.853

Date	Gnomon	Shadow	Angle
23 November 2018	30.4 cm	57.0 cm	61.9 °

23/11/2018 (Ioannina-Greece) Latitude: 39.676°

23/11/2018 (Rio de Janeiro-Brazil) Latitude: -22.89°

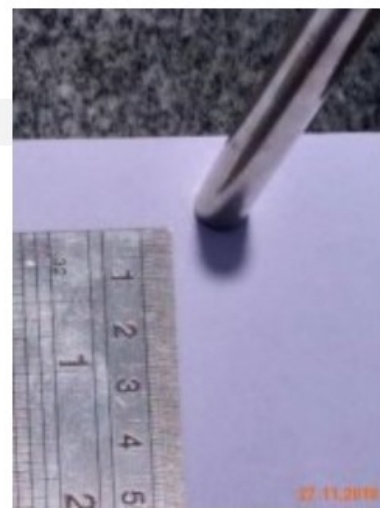


$$\text{circumference} = \frac{360^\circ \times 6951\text{km}}{61.9^\circ + 2.9^\circ} = 38617 \text{ km}$$



Itajubá, Brazil

November 2018

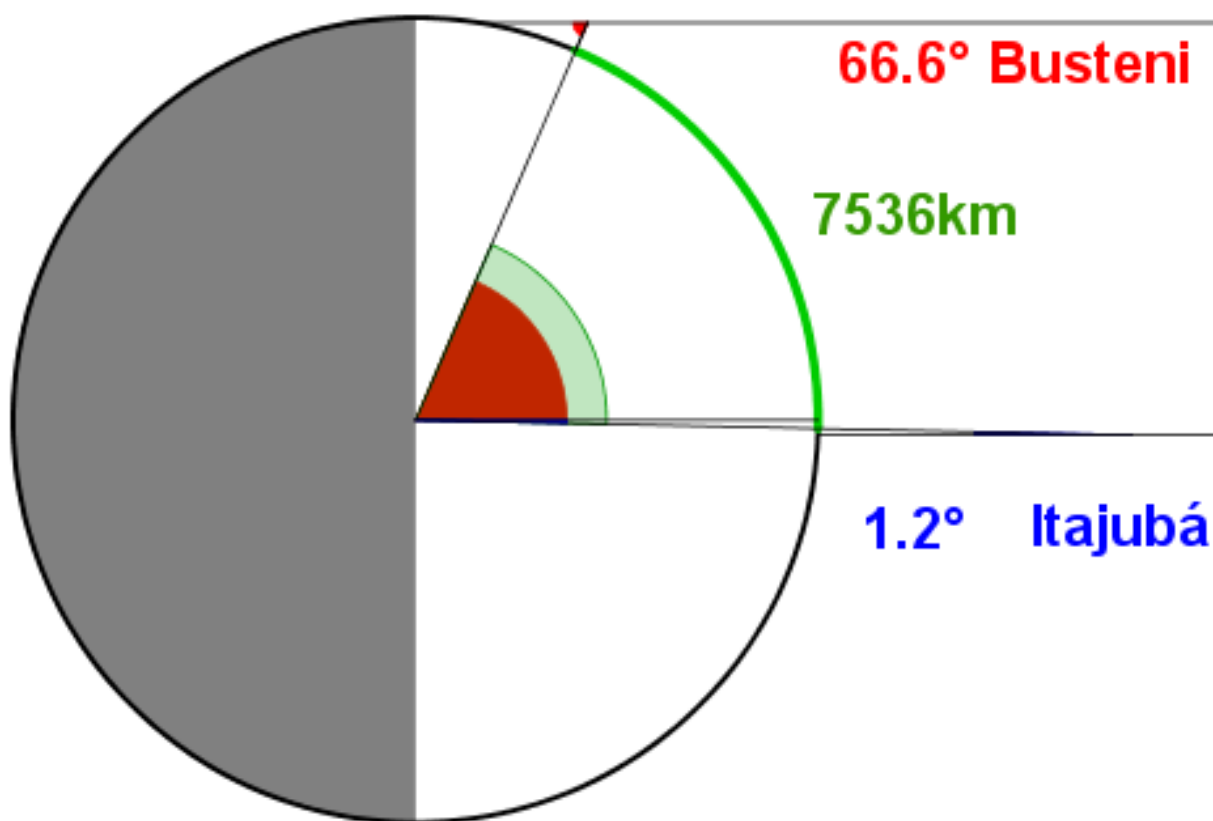


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Itajubá	Brazil	Universidade Federal de Itajubá	-22.415	-45.449

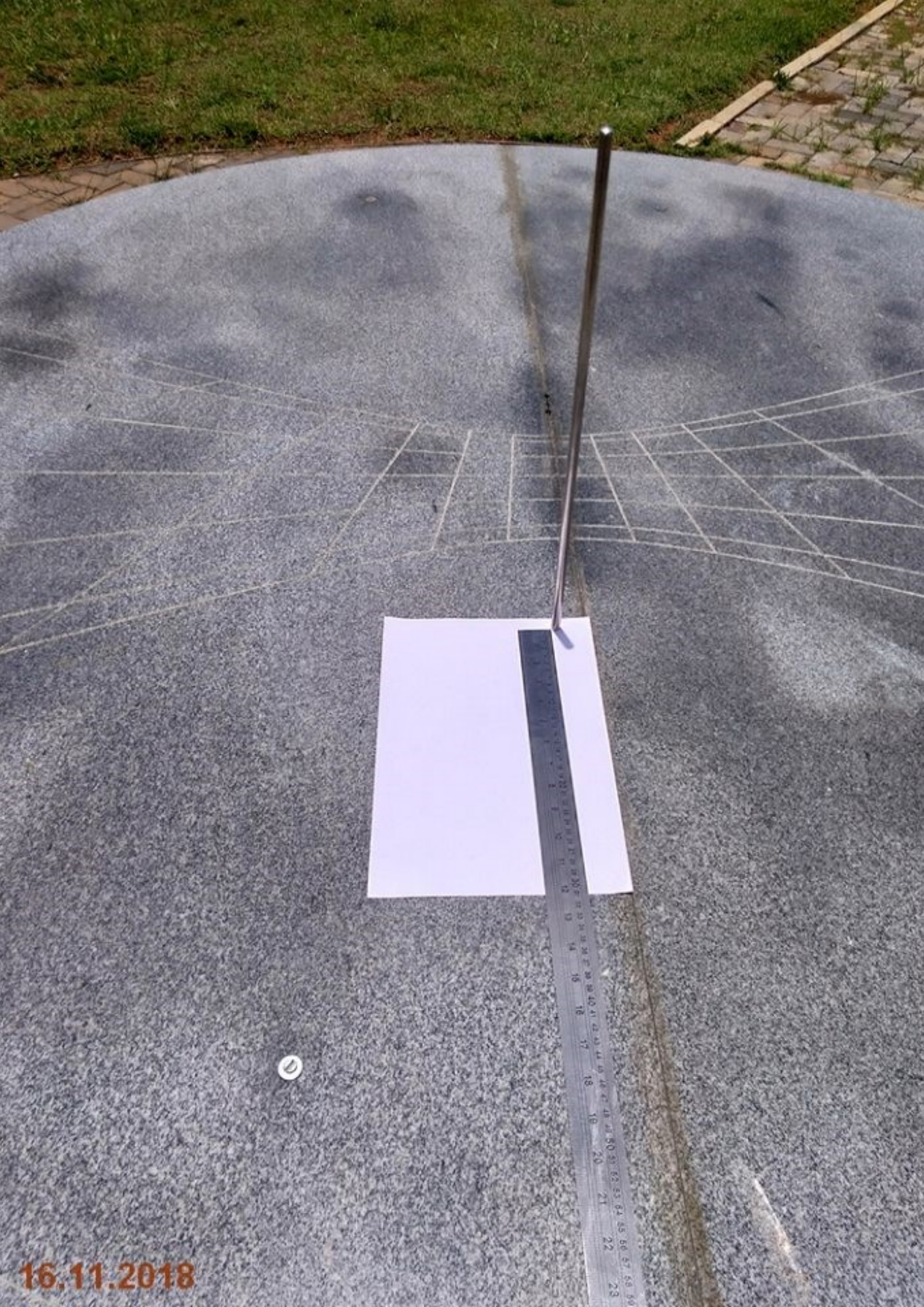
Date	Gnomon	Shadow	Angle
16 November 2018	47.3 cm	-3.0 cm	-3.6 °
27 November 2018	47.3 cm	-1.0 cm	-1.2 °
29 November 2018	47.3 cm	-0.6 cm	-0.7 °

27/11/2018 (Busteni-Romania) Latitude: 45.416°

27/11/2018 (Itajubá-Brazil) Latitude: -22.415°



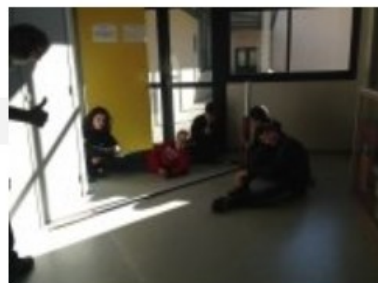
$$\text{circumference} = \frac{360^\circ \times 7536\text{km}}{66.6^\circ + 1.2^\circ} = 40014 \text{ km}$$



16.11.2018

Lafrançaise, France

November 2018

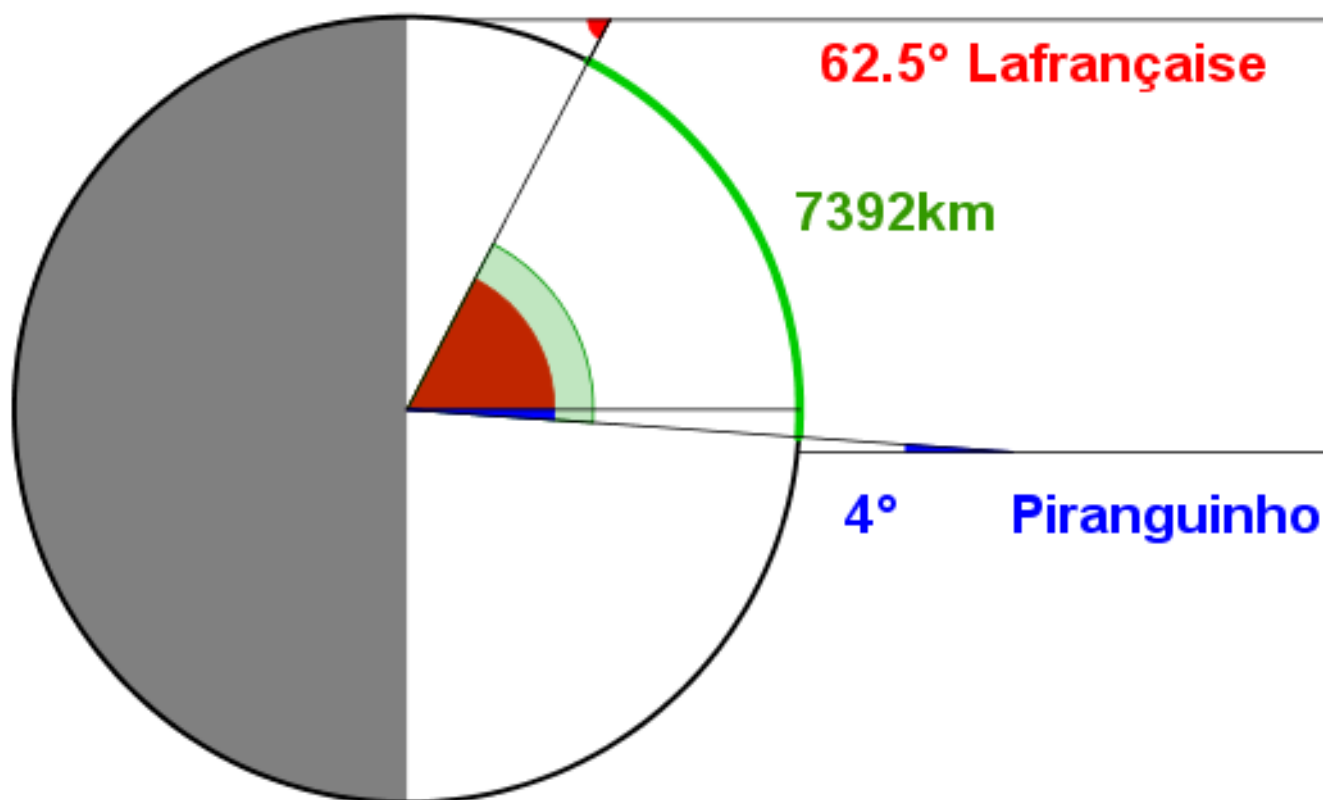


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Lafrançaise	France	Collège Antonin Perbosc	44.127	1.237

Date	Gnomon	Shadow	Angle
05 November 2018	100 cm	172 cm	59.8 °
08 November 2018	100.0 cm	178.0 cm	60.7 °
15 November 2018	100.0 cm	192.5 cm	62.5 °
16 November 2018	100.0 cm	195.0 cm	62.9 °
19 November 2018	100.0 cm	203.0 cm	63.8 °
22 November 2018	100.0 cm	211.0 cm	64.6 °
23 November 2018	100.0 cm	210.0 cm	64.5 °
29 November 2018	100.0 cm	224.0 cm	65.9 °
30 November 2018	100.0 cm	225.0 cm	66.0 °

15/11/2018 (Lafrançaise-France) Latitude: 44.127°

15/11/2018 (Piranguinho-Brazil) Latitude: -22.411°



$$\text{circumference} = \frac{360^\circ \times 7392\text{km}}{62.5^\circ + 4^\circ} = 40017 \text{ km}$$



Mărgineni, Romania

November 2018

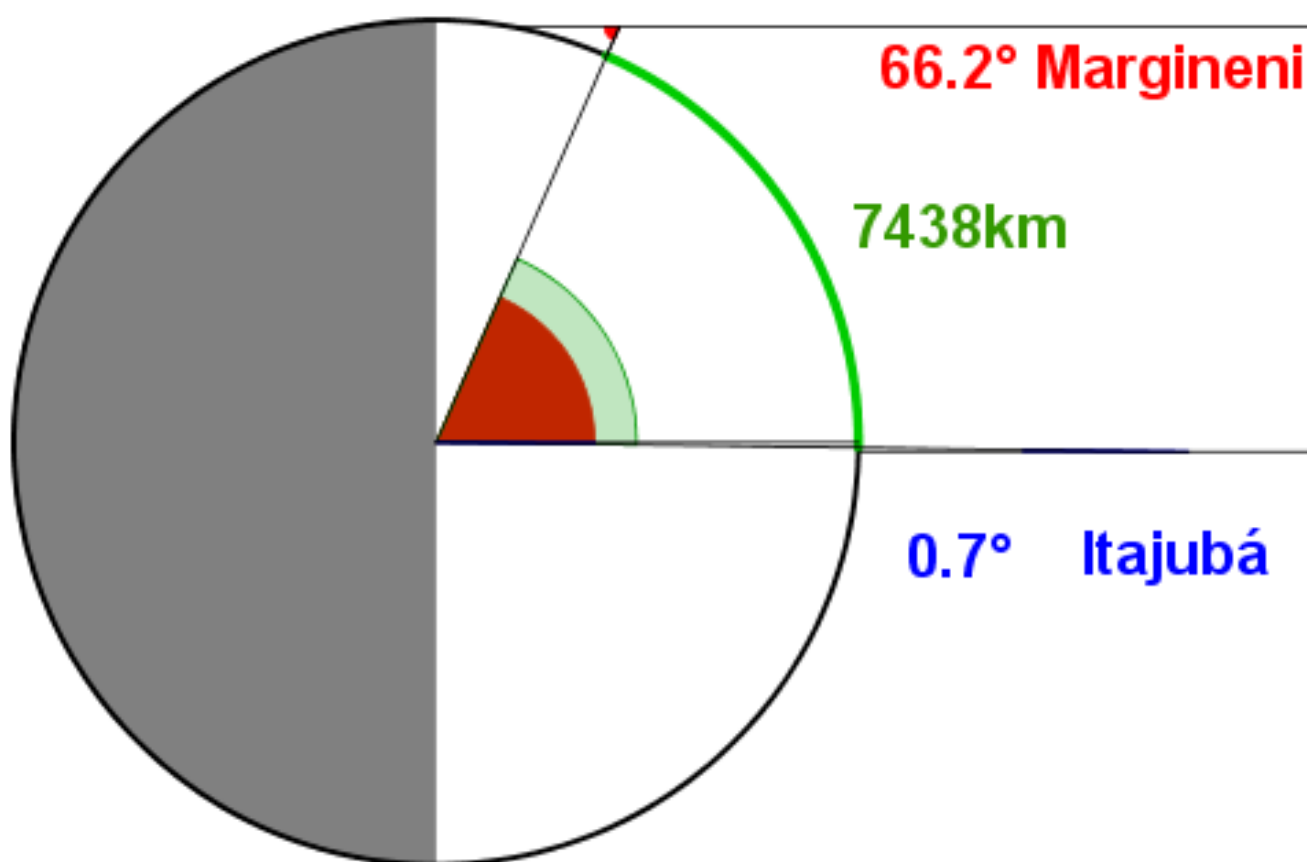


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Mărgineni	Romania	Gh. Popescu School	44.533	24.554

Date	Gnomon	Shadow	Angle
29 November 2018	120.0 cm	272.0 cm	66.2 °

29/11/2018 (Margineni-Romania) Latitude: 44.533°

29/11/2018 (Itajubá-Brazil) Latitude: -22.415°

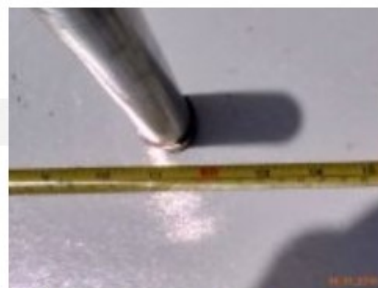


$$\text{circumference} = \frac{360^\circ \times 7438\text{km}}{66.2^\circ + 0.7^\circ} = 40025 \text{ km}$$



Piranguinho, Brazil

November 2018

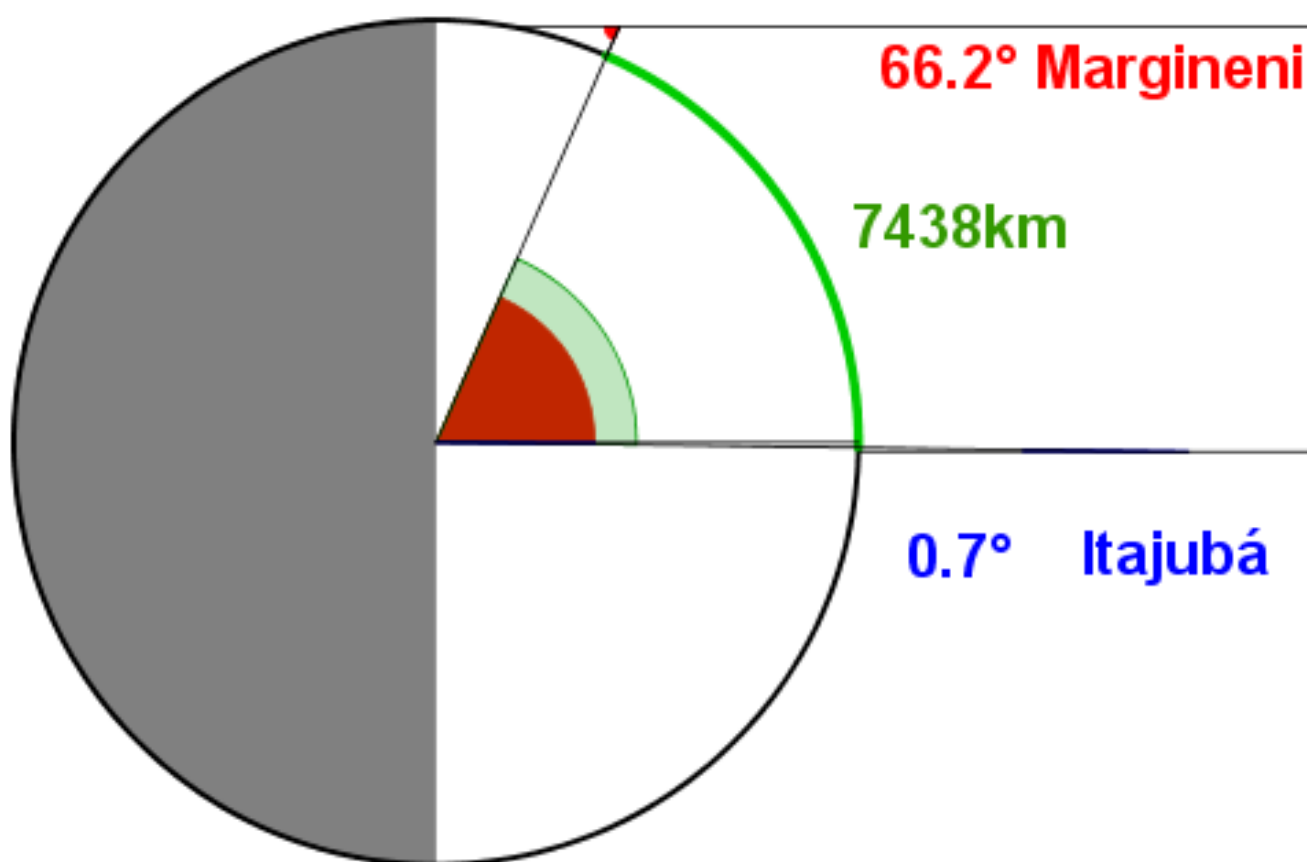


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Piranguinho	Brazil	Universidade Federal de Itajubá	-22.411	-45.535

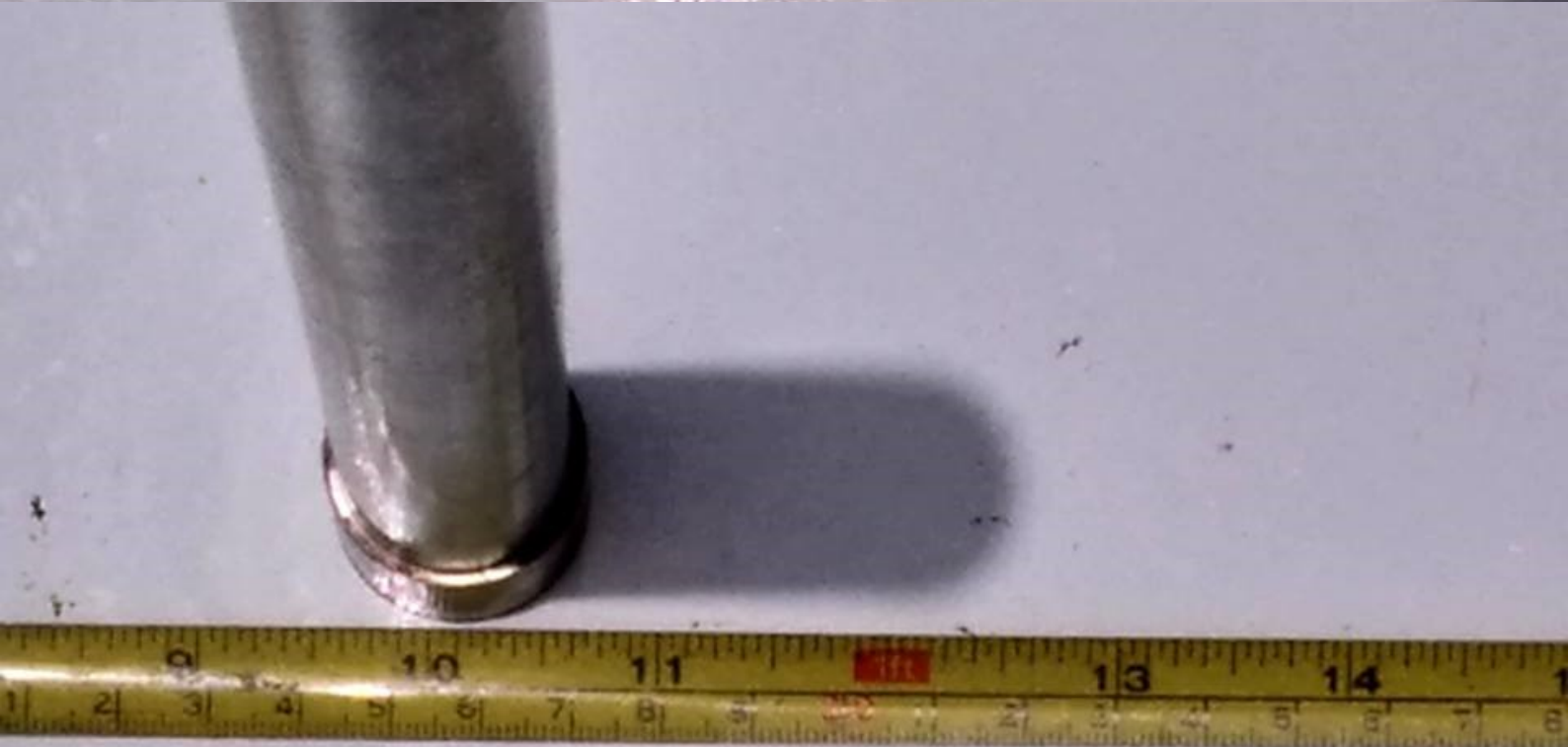
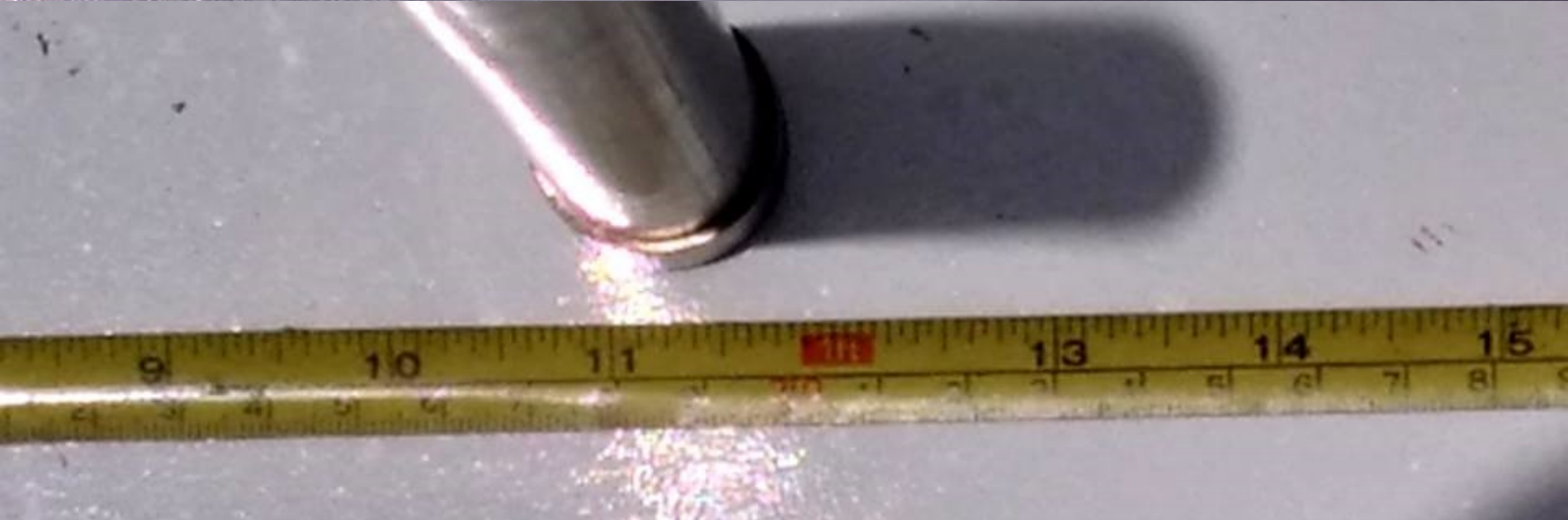
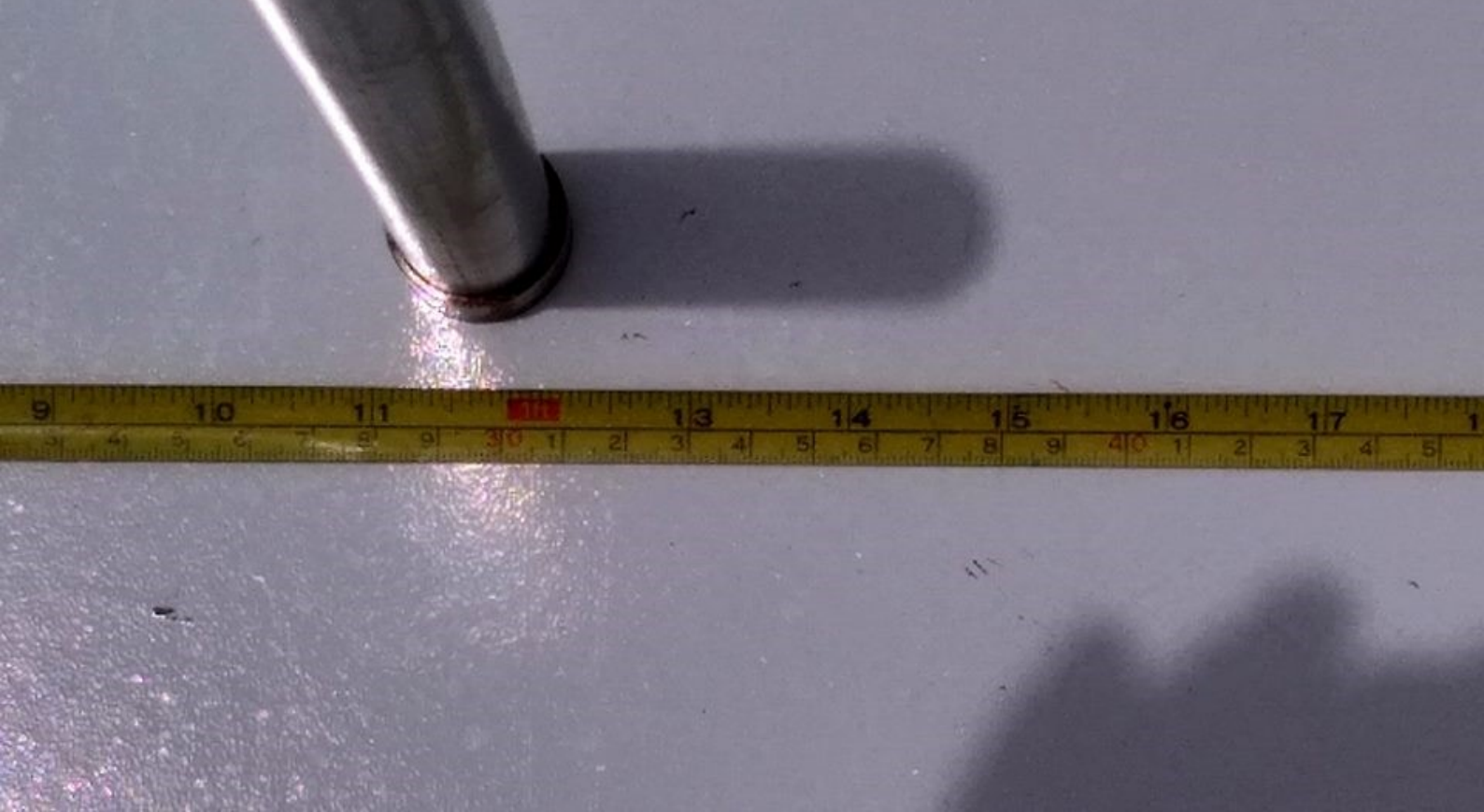
Date	Gnomon	Shadow	Angle
07 November 2018	70.0 cm	-7.2 cm	-5.9 °
14 November 2018	70 cm	-5.3 cm	-4.3 °
15 November 2018	70.0 cm	-4.9 cm	-4.0 °

29/11/2018 (Margineni-Romania) Latitude: 44.533°

29/11/2018 (Itajubá-Brazil) Latitude: -22.415°



$$\text{circumference} = \frac{360^\circ \times 7438\text{km}}{66.2^\circ + 0.7^\circ} = 40025 \text{ km}$$



Pogana, Romania

November 2018

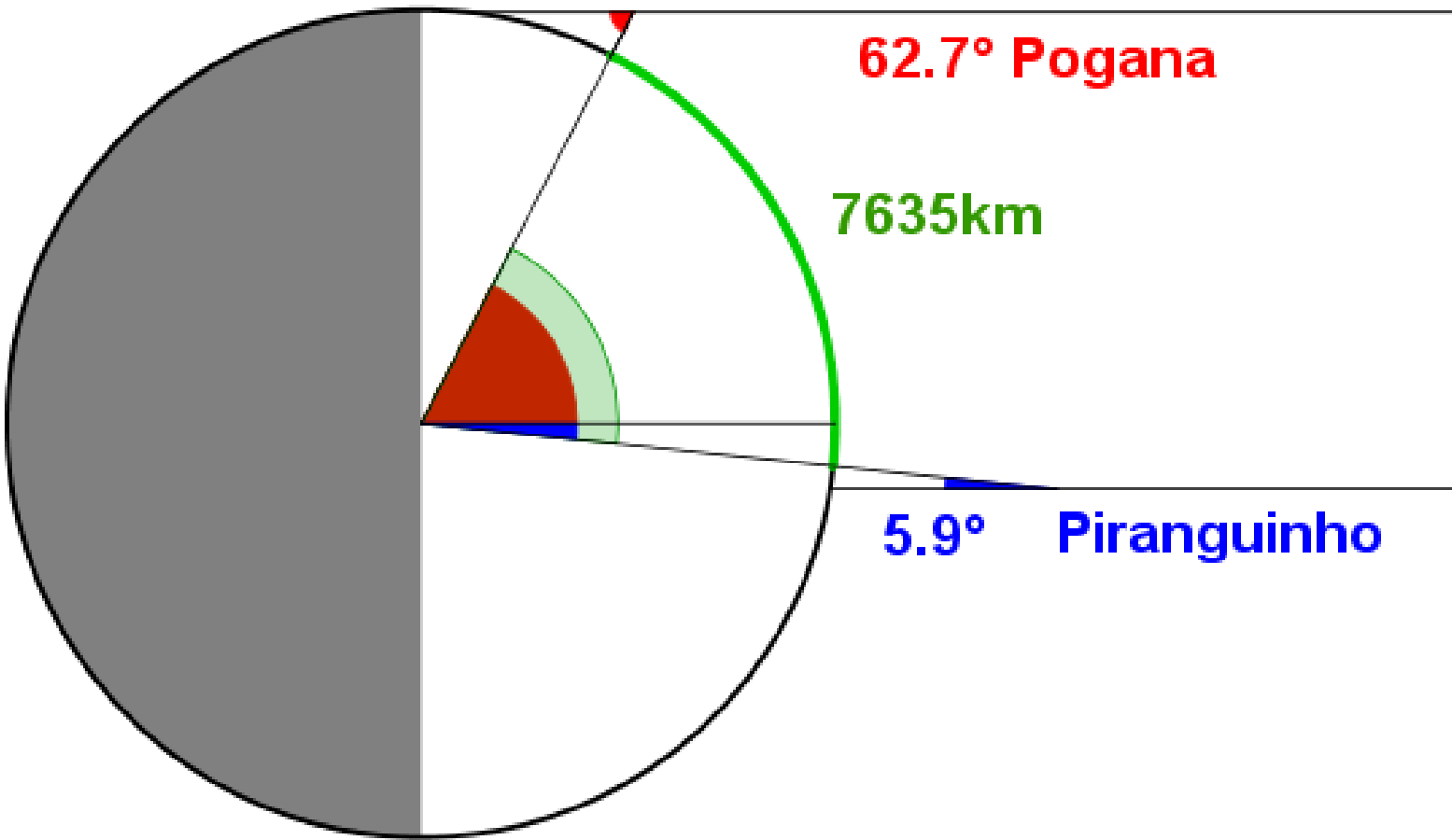


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Pogana	Romania	Scoala Gimnaziala Nr.1 Pogana	46.313	27.575

Date	Gnomon	Shadow	Angle
05 November 2018	39.5 cm	74.3 cm	62 °
07 November 2018	39.5 cm	76.4 cm	62.7 °
09 November 2018	39.5 cm	78.5 cm	63.3 °
20 November 2018	33.5 cm	75.5 cm	66.1 °

07/11/2018 (Pogana-Romania) Latitude: 46.313°

07/11/2018 (Piranguinho-Brazil) Latitude: -22.411°



circumference = $\frac{360^\circ \times 7635\text{km}}{62.7^\circ + 5.9^\circ} = 40067 \text{ km}$



Rio de Janeiro CENOM, Brazil

November 2018

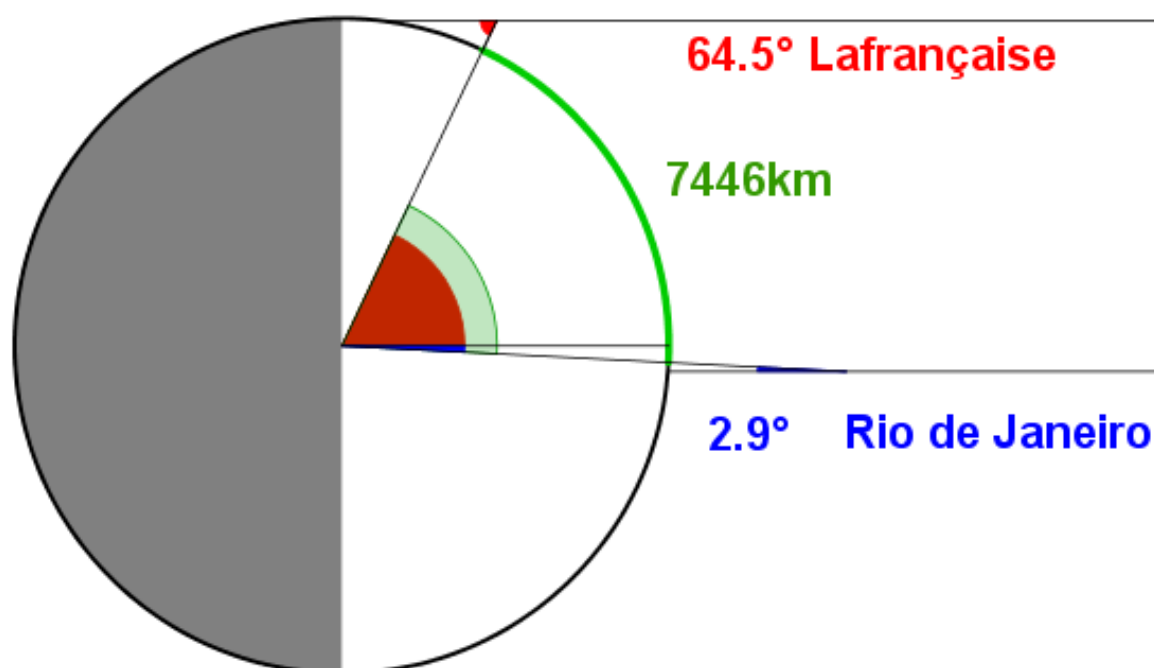


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	Centro Educacional Nosso Mundo	-22.890	-43.317

Date	Gnomon	Shadow	Angle
12 November 2018	100 cm	-20 cm	-11.3 °
13 November 2018	100 cm	-17 cm	-9.6 °
14 November 2018	100.0 cm	-17.0 cm	-9.6 °
22 November 2018	100.0 cm	-5.0 cm	-2.9 °
23 November 2018	100.0 cm	-5.0 cm	-2.9 °

23/11/2018 (Lafrançaise-France) Latitude: 44.127°

23/11/2018 (Rio de Janeiro-Brazil) Latitude: -22.89°



$$\text{circumference} = \frac{360^\circ \times 7446\text{km}}{64.5^\circ + 2.9^\circ} = 39771 \text{ km}$$



Rio de Janeiro MAST, Brazil

November 2018

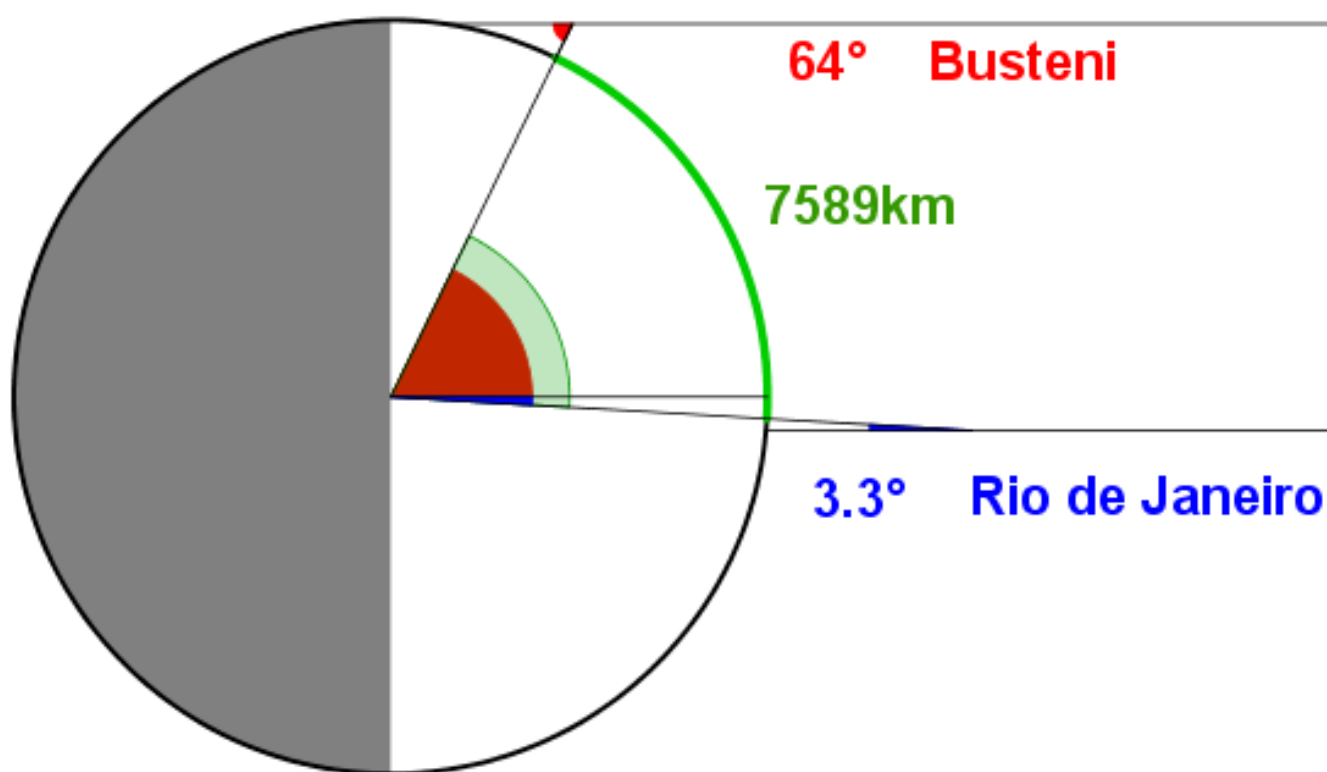


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	MAST - Museu de Astronomia e Ciências	-22.896	-43.224

Date	Gnomon	Shadow	Angle
15 November 2018	70.0 cm	-4.0 cm	-3.3 °

15/11/2018 (Busteni-Romania) Latitude: 45.416°

15/11/2018 (Rio de Janeiro-Brazil) Latitude: -22.896°



$$\text{circumference} = \frac{360^\circ \times 7589\text{km}}{64^\circ + 3.3^\circ} = 40595 \text{ km}$$



Rio de Janeiro ARTES, Brazil

November 2018



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	Cidade das Artes	-22.999	-43.368

Date	Gnomon	Shadow	Angle
03 November 2018	38 cm	-4.5 cm	-6.8 °
04 November 2018	10 cm	-1.6 cm	-9.1 °





City	Partner	Circumference (km)	Date
Aigio	Lafrançaise	39844	05 November
Alta Gracia	Busteni	40139	14 November
Athens	Busteni	39408	05 November
Bizerte	Guarne	40397	12 November
Busteni	Itajubá	40014	27 November
Dholpur	Busteni	34217	26 November
Dorohoi	Busteni	46145	09 November
Guarne	Busteni	39737	12 November
Ioannina	Rio de Janeiro cenom	38617	23 November
Itajubá	Busteni	40014	27 November
Lafrançaise	Piranguinho	40017	15 November
Margineni	Itajubá	40025	29 November
Piranguinho	Lafrançaise	40017	15 November
Pogana	Piranguinho	39822	07 November
Rio de Janeiro cenom	Lafrançaise	39771	23 November
Rio de Janeiro mast	Busteni	40595	15 November
Average		39924	