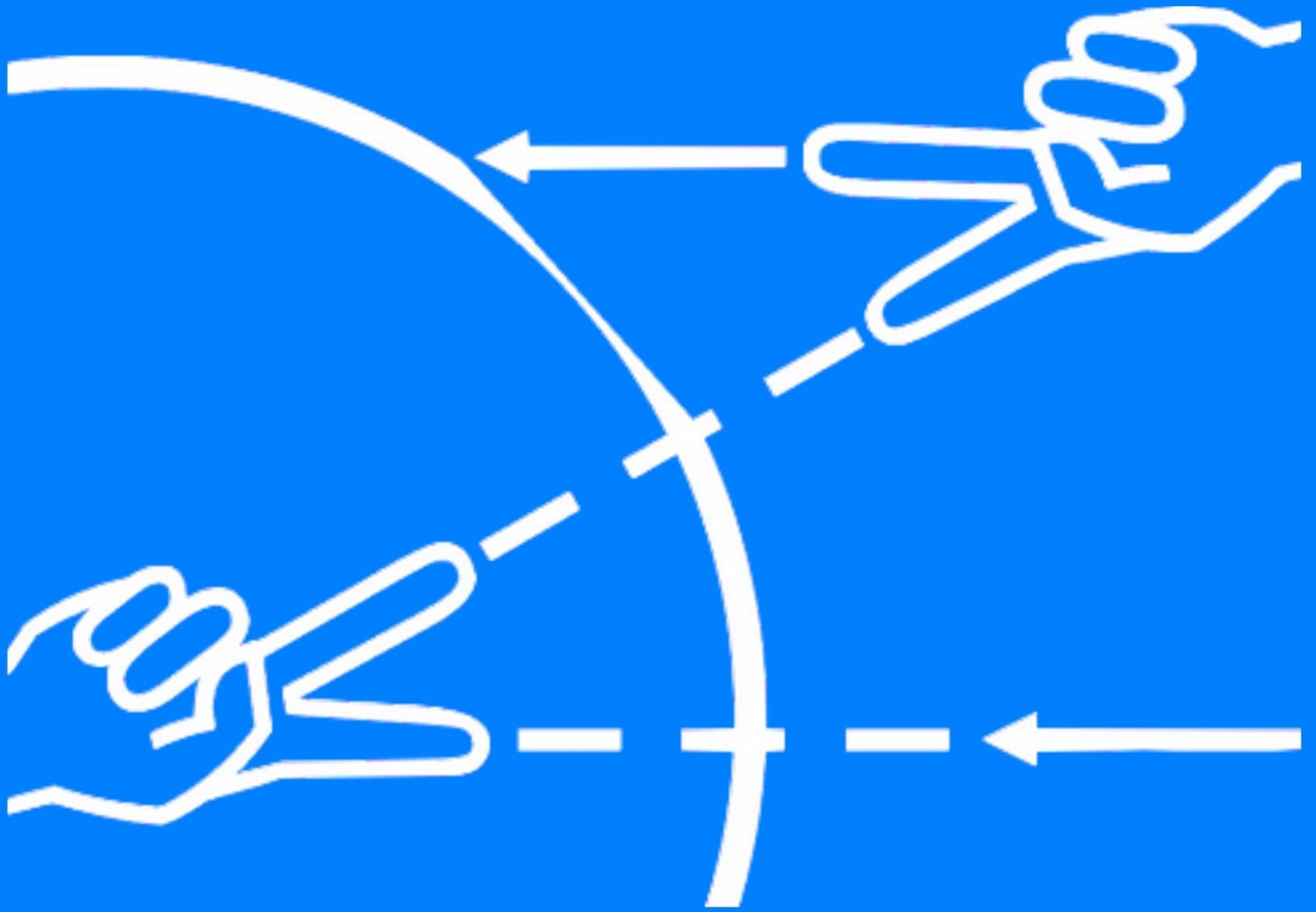


Eratosthenes



3 Continents

10 Countries

28 Schools

105 Measures

N°33

September 2018

3 Continents

10 Countries

28 Schools

105 Measures

ARGENTINA (6)

Alta Gracia, Buenos Aires, Chivilcoy, Quitilipi, Rio Cuarto, Villa del Prado

BRAZIL (3)

Itajubá, Piranguinho, Rio de Janeiro

COLOMBIA (2)

Guarne, Rionegro

CROATIA (3)

Brštanovo, Donji Muć, Zagreb

FRANCE (2)

Cernay, lafrançaise

GREECE (5)

Aigio, Athens, Petroupoli, Piraeus, Pylos

PUERTO RICO (1)

Bayamón

ROMANIA (3)

Busteni, Margineni, Pogana

SERBIA (1)

Nis

SPAIN (1)

Úbeda

TUNISIA (1)


Mohammedia

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
	Bayamón	Puerto Rico	AECM Carribean University	18.383	-66.168
	Brštanovo	Croatia	Osnovna škola kneza Branimira	43.658	16.415
	Buenos Aires	Argentina	ESS N° 48 - Lanús	-34.702	-58.407
	Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535
	Cernay	France	Collège René Cassin	47.814	7.183
	Chivilcoy	Argentina	Parque Cielos del Sur	-34.911	-60.014
	Donji Muć	Croatia	oš kneza Branimira	43.694	16.462
	Guarne	Colombia	Grupo Astrofanáticos	6.274	-75.449
	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
	Mohammedia	Tunisia	Lycée M'hamdia	36.678	10.152
	Nis	Serbia	Gimnazija Svetozar Markovic	43.300	21.883
	Petroupoli	Greece	4o Junior High School	38.036	23.674
	Piraeus	Greece	2nd Junior High School of Korydallos	37.977	23.655
	Piranguinho	Brazil	Universidade Federal de Itajubá	-22.411	-45.535
	Pogana	Romania	Scoala Gimnaziala Nr.1 Pogana	46.313	27.575
	Pylos	Greece	1st Kindergarten of Pylos	36.911	21.694
	Quitilipi	Argentina	IES "Juan José Gualberto Pisarello"	-26.880	-60.219
	Rio Cuarto	Argentina	Colegio Concordia	-33.149	-64.351
	Rio de Janeiro	Brazil	Centro Educacional Nosso Mundo	-22.890	-43.317
	Rionegro	Colombia	Colegio Campestre San Nicolás	6.163	-75.359
	Úbeda	Spain	Colegio Salesiano Santo Domingo Savio	38.017	-3.367
	Villa del Prado	Argentina	Jardin Jose Hernandez	-31.360	-64.230
	Zagreb	Croatia	Elementary School Petar Zrinski	45.812	15.959

Aigio, Greece

September 2018

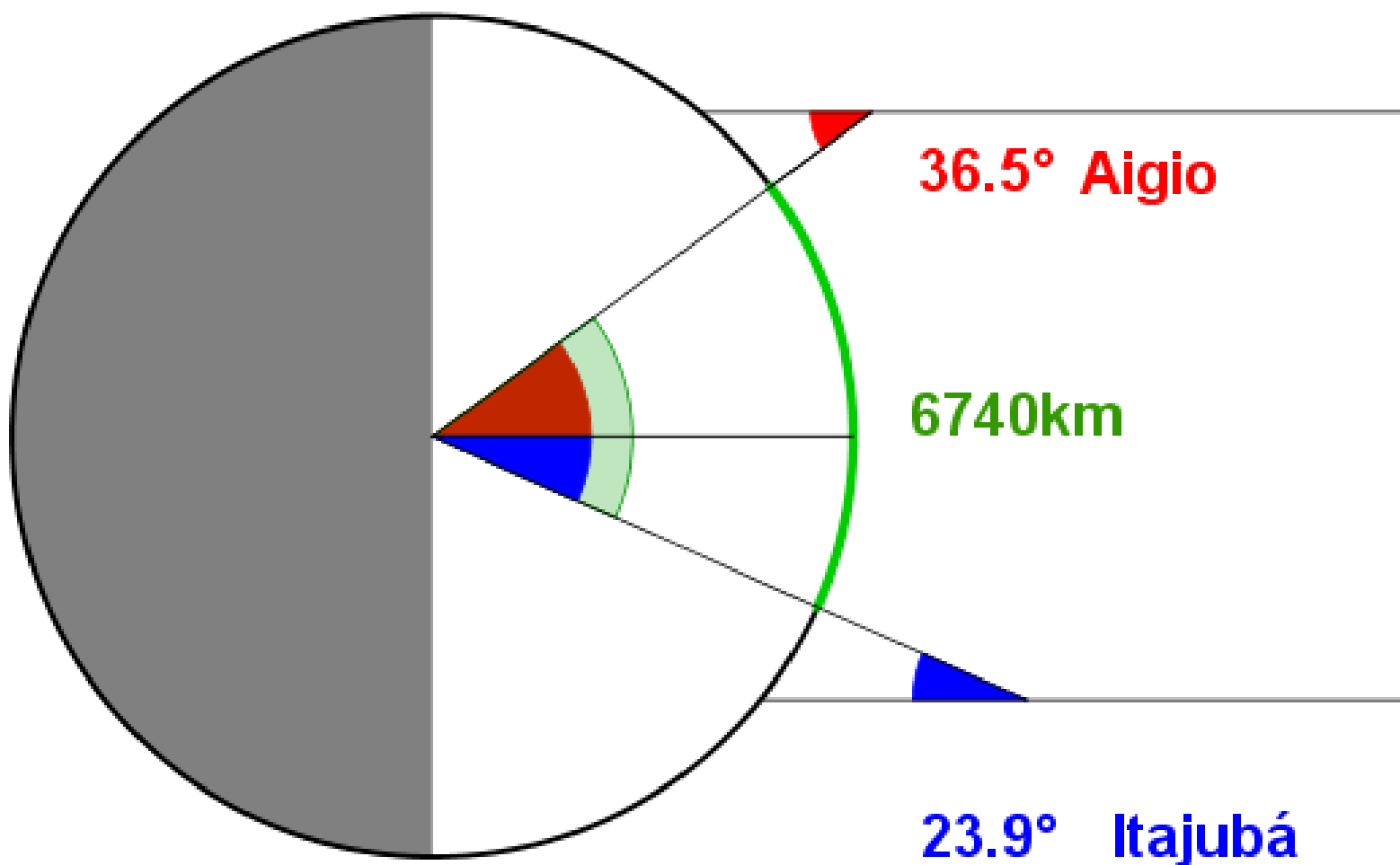


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Aigio	Greece	1st High School of Aigio	38.252	22.079

Date	Gnomon	Shadow	Angle
06 September 2018	50 cm	31 cm	31.8 °
19 September 2018	50.0 cm	37.0 cm	36.5 °
25 September 2018	30 cm	26 cm	40.9 °

19/09/2018 (Aigio-Greece) Latitude: 38.252°

19/09/2018 (Itajubá-Brazil) Latitude: -22.415°



$$\text{circumference} = \frac{360^\circ \times 6740\text{km}}{36.5^\circ + 23.9^\circ} = 40172 \text{ km}$$



Alta Gracia, Argentina

September 2018

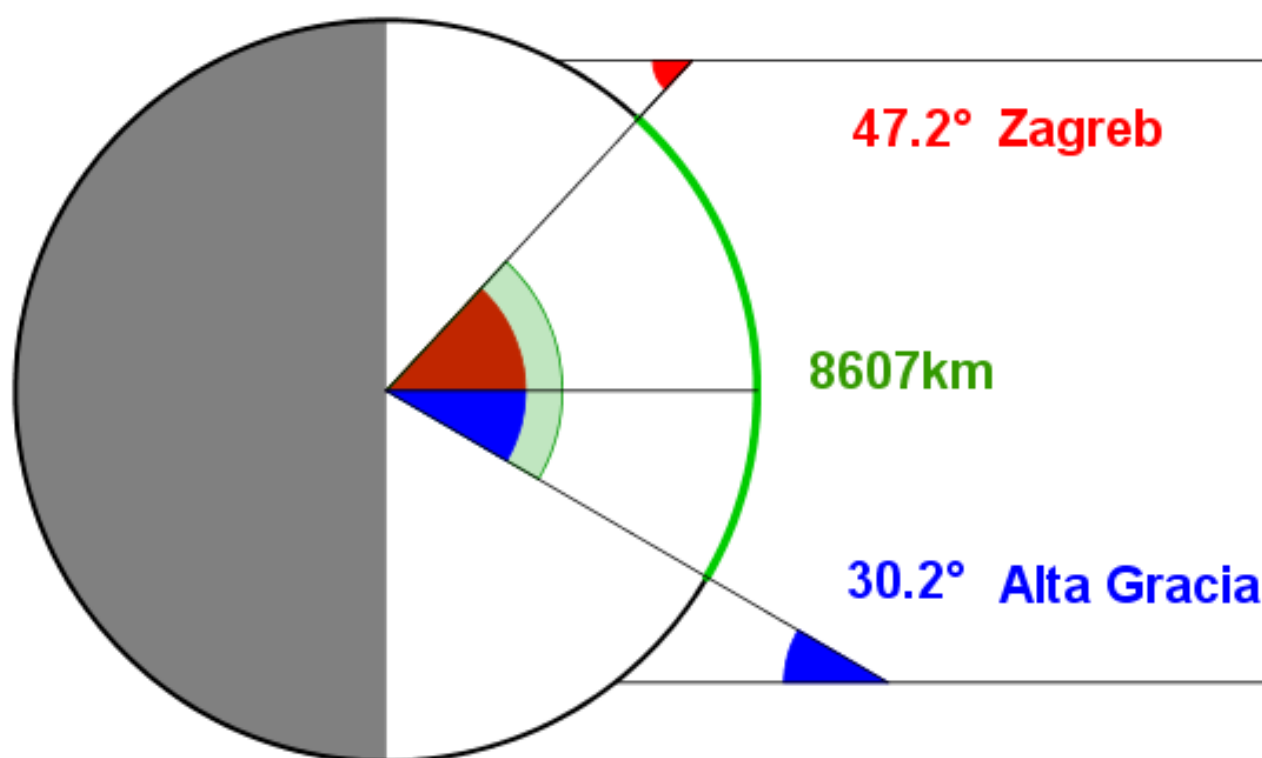


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Alta Gracia	Argentina	Fundación Caminos de Anisacate	-31.659	-64.417

Date	Gnomon	Shadow	Angle
04 September 2018	39.5 cm	-31 cm	-38.1 °
06 September 2018	39.5 cm	-30.3 cm	-37.5 °
07 September 2018	39.5 cm	-30.0 cm	-37.2 °
14 September 2018	39.5 cm	-27 cm	-34.4 °
19 September 2018	39.5 cm	-25.5 cm	-32.8 °
20 September 2018	39.5 cm	-24.8 cm	-32.1 °
21 September 2018	39.5 cm	-24.5 cm	-31.8 °
22 September 2018	39.5 cm	-24.4 cm	-31.7 °
23 September 2018	39.5 cm	-24 cm	-31.3 °
25 September 2018	39.5 cm	-23 cm	-30.2 °

25/09/2018 (Zagreb-Croatia) Latitude: 45.812°

25/09/2018 (Alta Gracia-Argentina) Latitude: -31.658°



$$\text{circumference} = \frac{360^\circ \times 8607\text{km}}{47.2^\circ + 30.2^\circ} = 40033 \text{ km}$$



Athens, Greece

September 2018

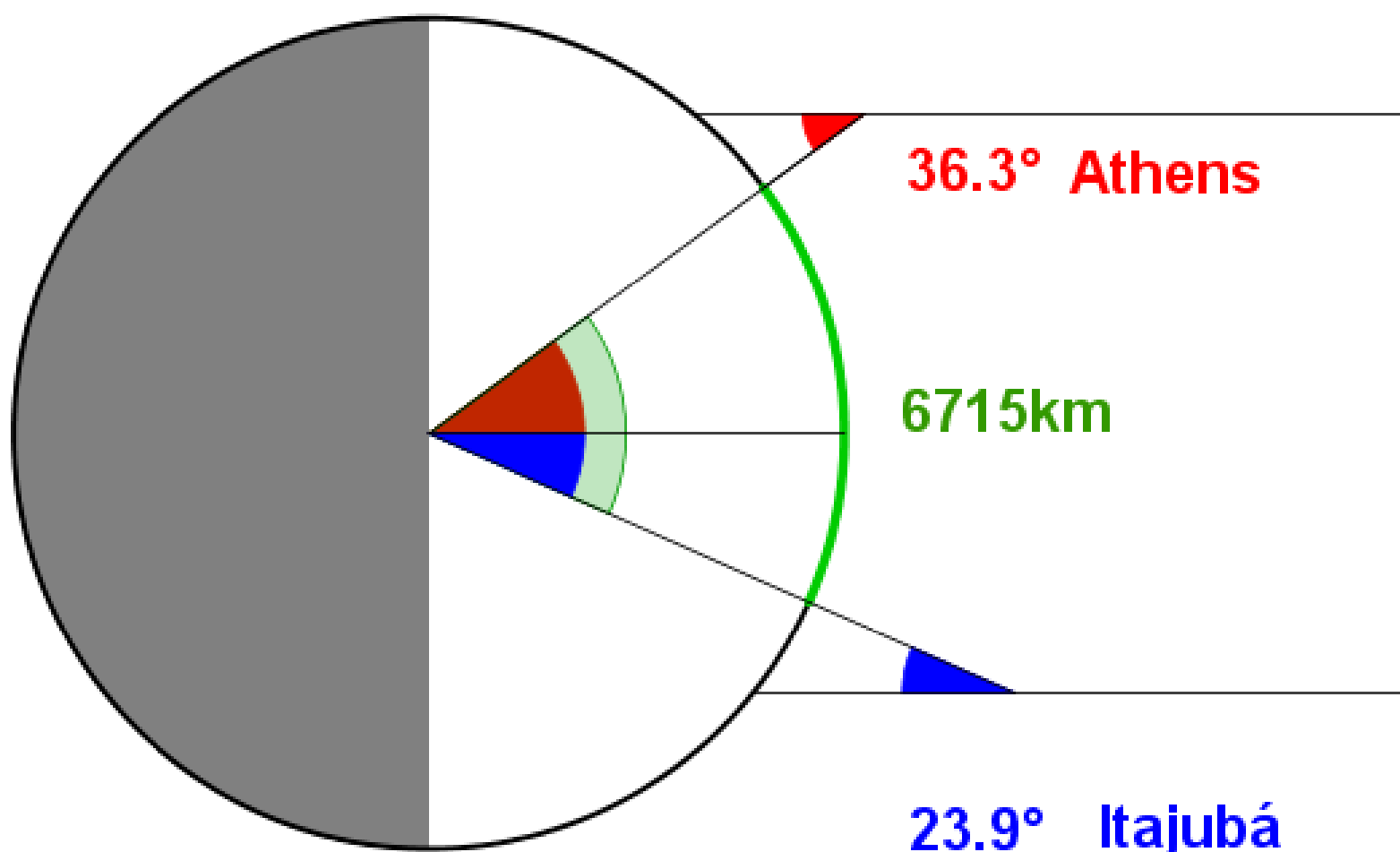


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Athens	Greece	Experimental College Agion Anargyron	38.027	23.726

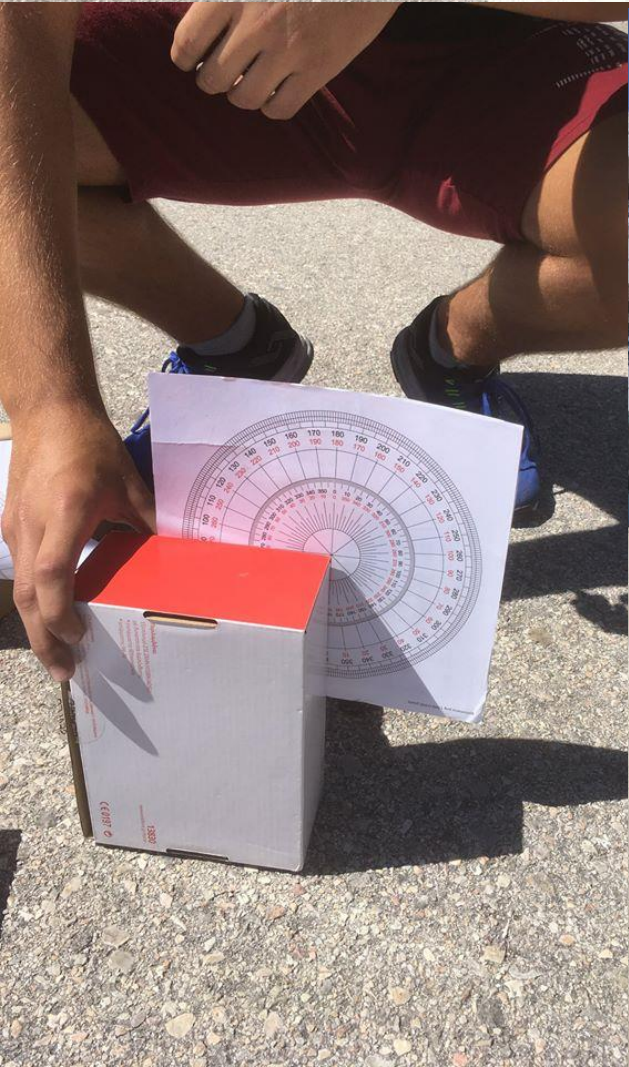
Date	Gnomon	Shadow	Angle
19 September 2018	49.0 cm	36.0 cm	36.3 °
21 September 2018	248 cm	187 cm	37 °

19/09/2018 (Athens-Greece) Latitude: 38.027°

19/09/2018 (Itajubá-Brazil) Latitude: -22.415°



$$\text{circumference} = \frac{360^\circ \times 6715\text{km}}{36.3^\circ + 23.9^\circ} = 40156 \text{ km}$$



Bayamón, Puerto Rico

September 2018

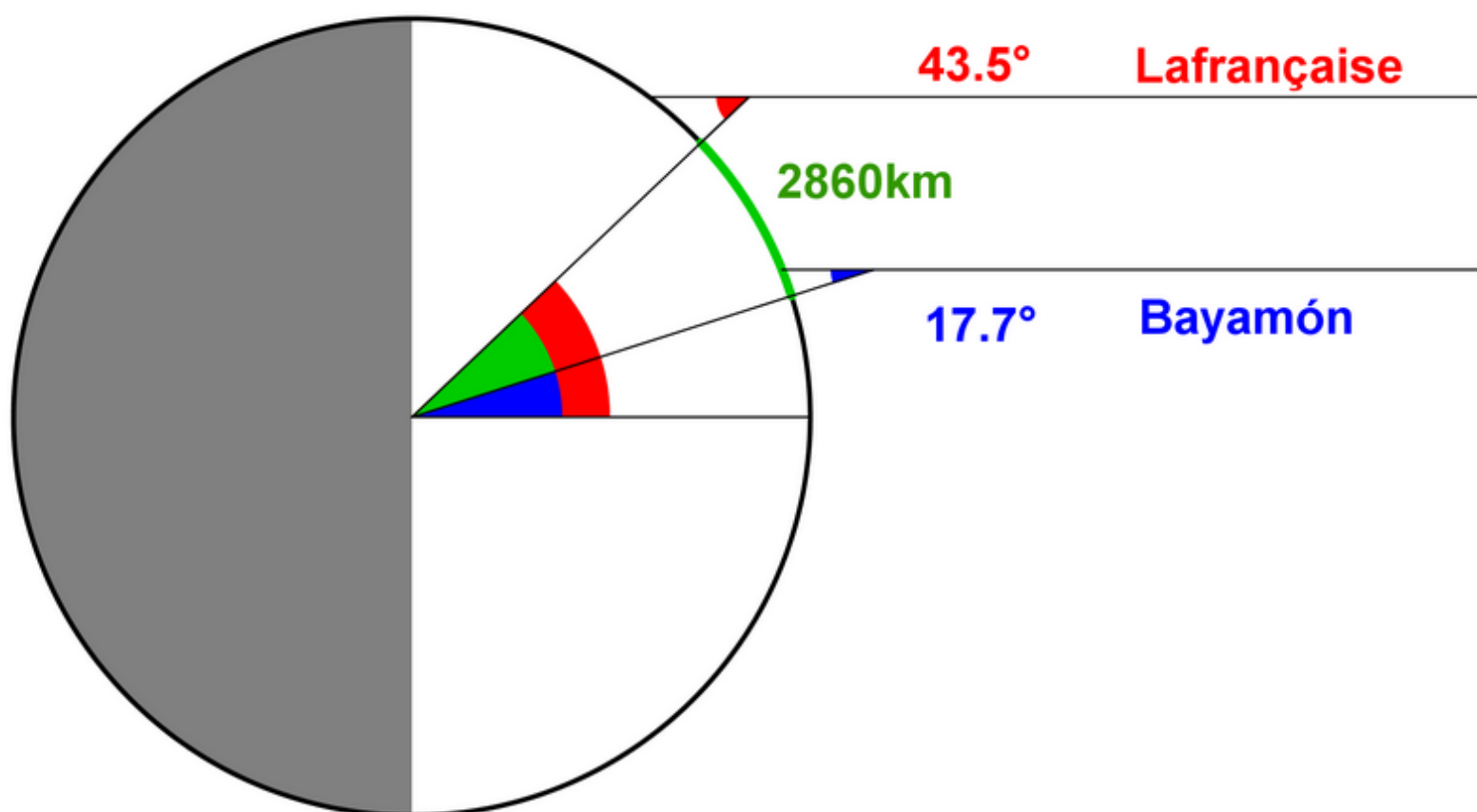


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Bayamón	Puerto Rico	AECM Carribean University	18.383	-66.168

Date	Gnomon	Shadow	Angle
08 September 2018	96.0 cm	20.0 cm	11.8 °
10 September 2018	95 cm	21 cm	12.5 °
11 September 2018	95 cm	25 cm	14.7 °
12 September 2018	95 cm	23 cm	13.6 °
18 September 2018	95.0 cm	31.0 cm	18.1 °
21 September 2018	25.0 cm	8.0 cm	17.7 °
22 September 2018	25 cm	8.5 cm	18.8 °
24 September 2018	100 cm	31 cm	17.2 °
28 September 2018	95 cm	37 cm	21.3 °

21/09/2018 (Lafrançaise-France) Latitude: 44.127°

21/09/2018 (Bayamón-Puerto Rico) Latitude: 18.383°



$$\text{circumference} = \frac{360^\circ \times 2860\text{km}}{43.5^\circ - 17.7^\circ} = 39907 \text{ km}$$



Brštanovo, Croatia

September 2018

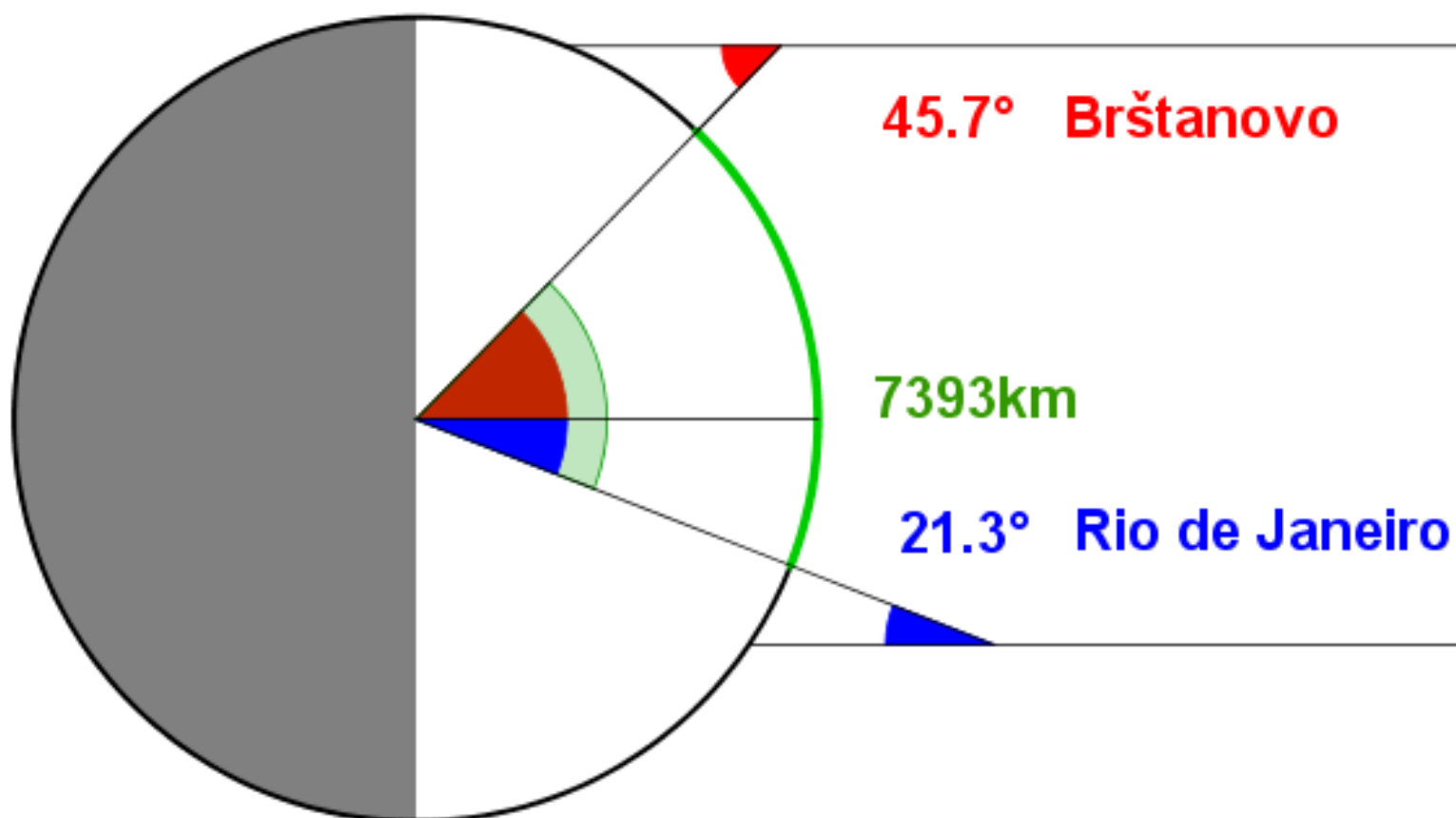


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Brštanovo	Croatia	Osnovna škola kneza Branimira	43.658	16.415

Date	Gnomon	Shadow	Angle
26 September 2018	32 cm	33.2 cm	46.1 °
19 September 2018	32.0 cm	31.7 cm	44.7 °
20 September 2018	32.0 cm	32.8 cm	45.7 °
21 September 2018	32 cm	33.4 cm	46.2 °

20/09/2018 (Brštanovo-Croatia) Latitude: 43.658°

20/09/2018 (Rio de Janeiro-Brazil) Latitude: -22.89°




$$\text{circumference} = \frac{360^\circ \times 7393\text{km}}{45.7^\circ + 21.3^\circ} = 39724 \text{ km}$$



Buenos Aires , Argentina

September 2018

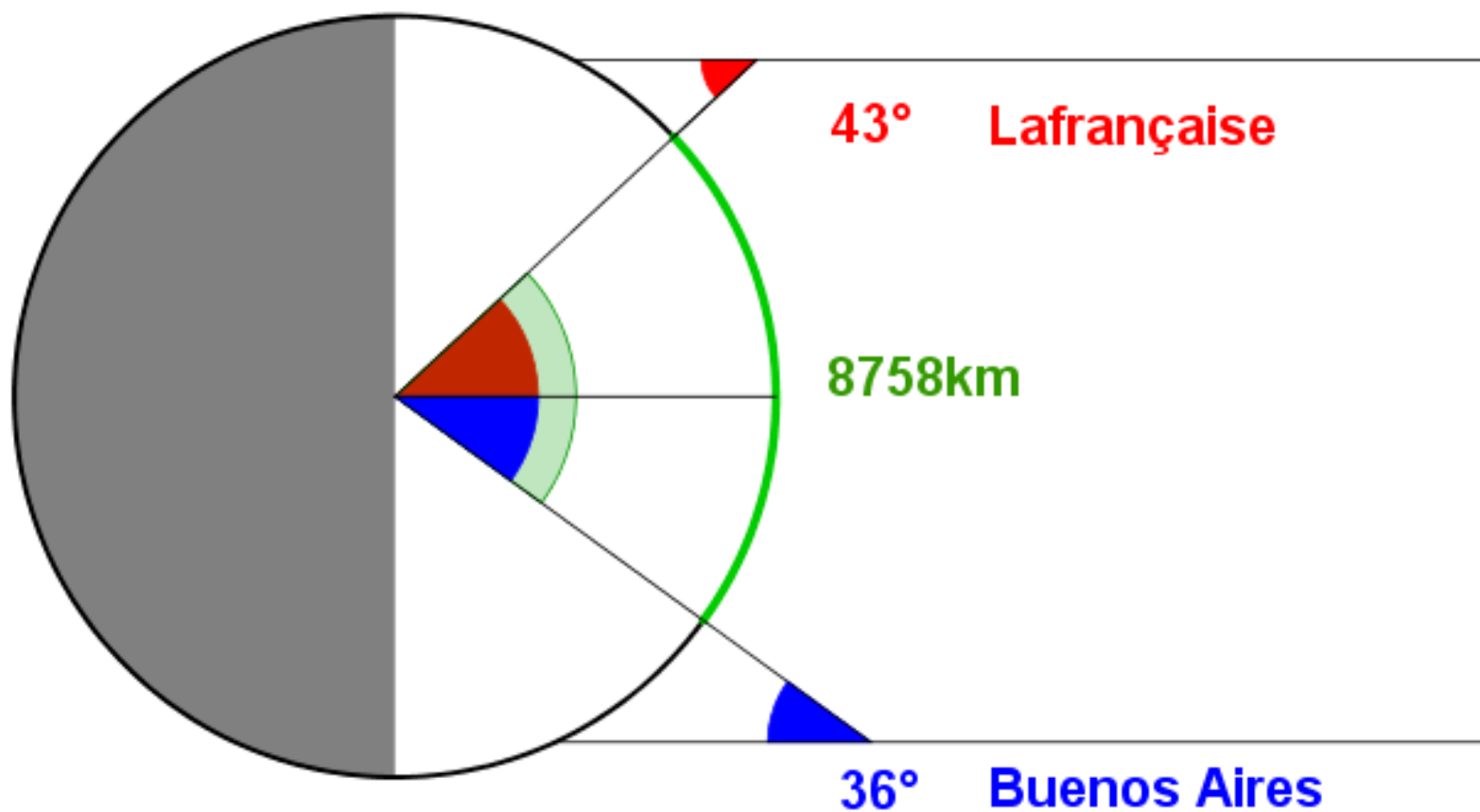


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Buenos Aires	Argentina	ESS N° 48 - Lanús	-34.702	-58.407

Date	Gnomon	Shadow	Angle
19 September 2018	17.0 cm	-12.0 cm	-35.2 °
20 September 2018	31.0 cm	-22.5 cm	-36.0 °

20/09/2018 (Lafrançaise-France) Latitude: 44.127°

20/09/2018 (Buenos Aires-Argentina) Latitude: -34.702°




$$\text{circumference} = \frac{360^\circ \times 8758\text{km}}{43^\circ + 36^\circ} = 39910 \text{ km}$$



Busteni, Romania

September 2018

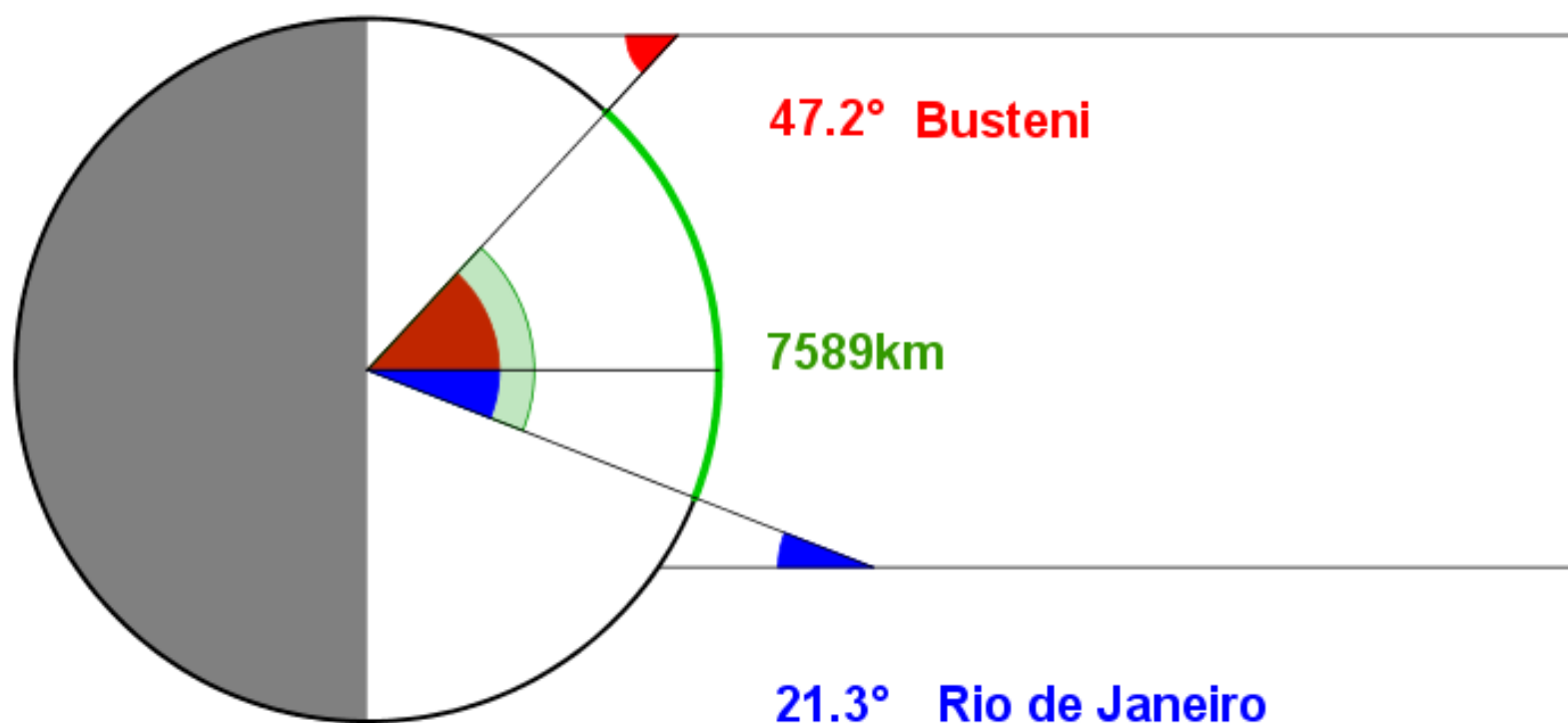


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535

Date	Gnomon	Shadow	Angle
11 September 2018	23.2 cm	20 cm	40.8 °
12 September 2018	23.2 cm	20.3 cm	41.2 °
14 September 2018	48.5 cm	43.6 cm	42.0 °
17 September 2018	58.6 cm	55 cm	43.2 °
19 September 2018	48.5 cm	46.8 cm	44.0 °
20 September 2018	48.5 cm	47.4 cm	44.3 °
21 September 2018	48.5 cm	48.1 cm	44.8 °
22 September 2018	29.8 cm	30 cm	45.2 °
24 September 2018	58.7 cm	60 cm	45.6 °
25 September 2018	59 cm	62 cm	46.4 °
26 September 2018	59 cm	62.8 cm	46.8 °
27 September 2018	59 cm	63.7 cm	47.2 °
28 September 2018	59 cm	64.6 cm	47.6 °

27/09/2018 (Busteni-Romania) Latitude: 45.416°

27/09/2018 (Rio de Janeiro-Brazil) Latitude: -22.89°




$$\text{circumference} = \frac{360^\circ \times 7589\text{km}}{47.2^\circ + 21.3^\circ} = 39884 \text{ km}$$



Cernay, France

September 2018

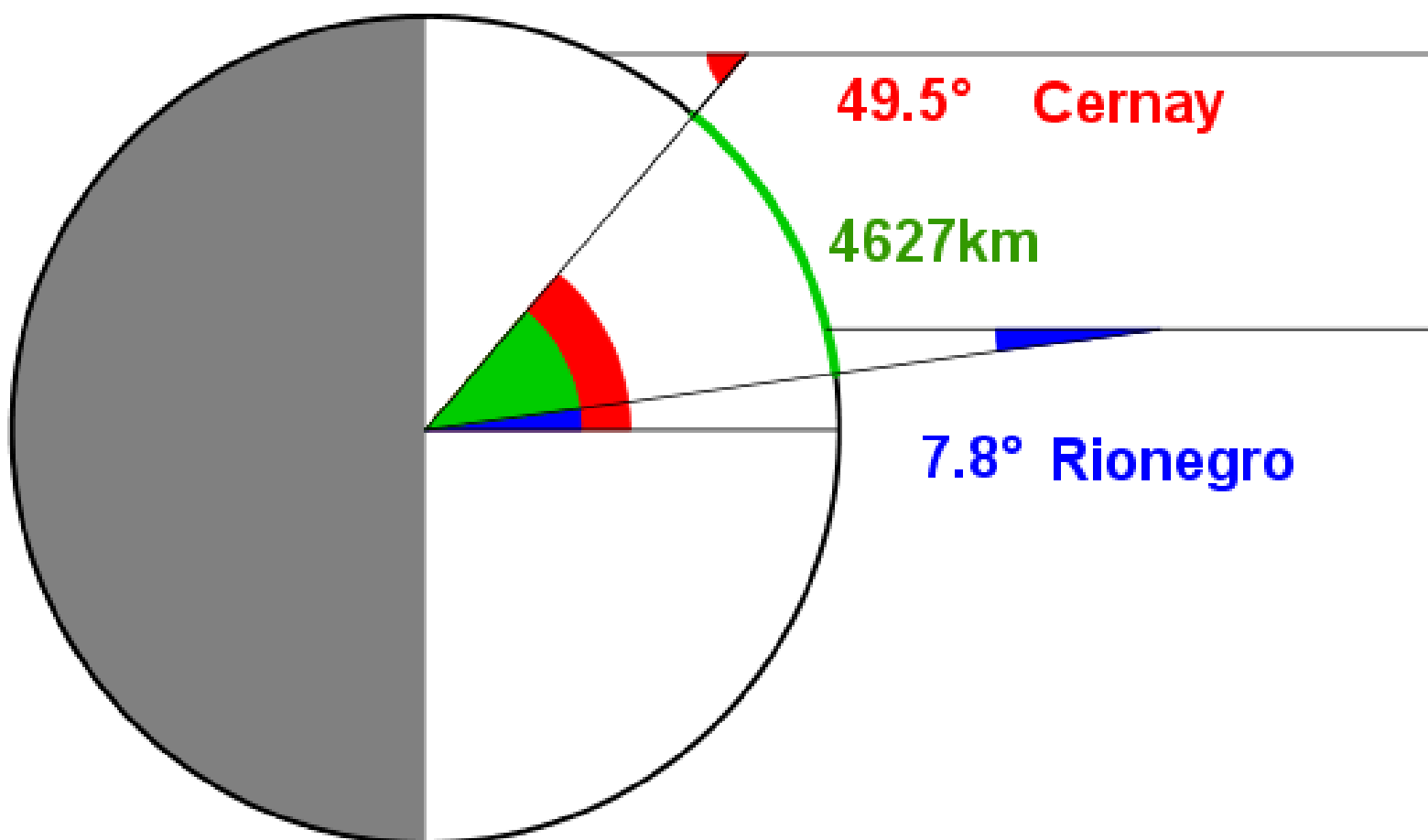


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Cernay	France	Collège René Cassin	47.814	7.183

Date	Gnomon	Shadow	Angle
27 September 2018	368.5 cm	431 cm	49.5 °

27/09/2018 (Cernay-France) Latitude: 47.814°

27/09/2018 (Rionegro-Colombia) Latitude: 6.163°



$$\text{circumference} = \frac{360^\circ \times 4627\text{km}}{49.5^\circ - 7.8^\circ} = 39945 \text{ km}$$



Chivilcoy, Argentina

September 2018

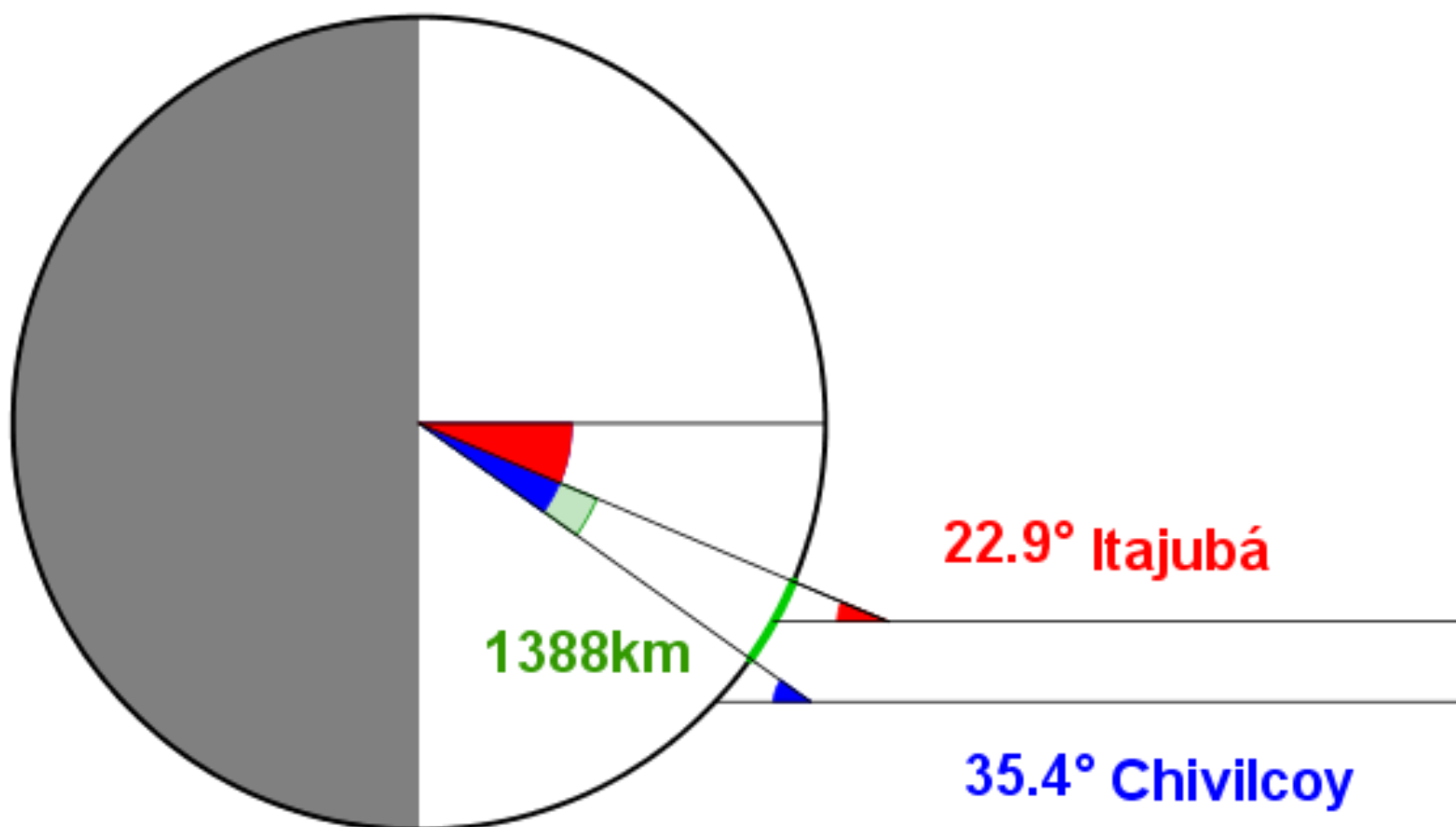


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Chivilcoy	Argentina	Parque Cielos del Sur	-34.911	-60.014

Date	Gnomon	Shadow	Angle
21 September 2018	170 cm	121 cm	35.4 °

21/09/2018 (Itajubá-Brazil) Latitude: -22.415°

21/09/2018 (Chivilcoy-Argentina) Latitude: -34.911°




$$\text{circumference} = \frac{360^\circ \times 1388\text{km}}{35.4^\circ - 22.9^\circ} = 39974 \text{ km}$$



Donji Muć, Croatia

September 2018

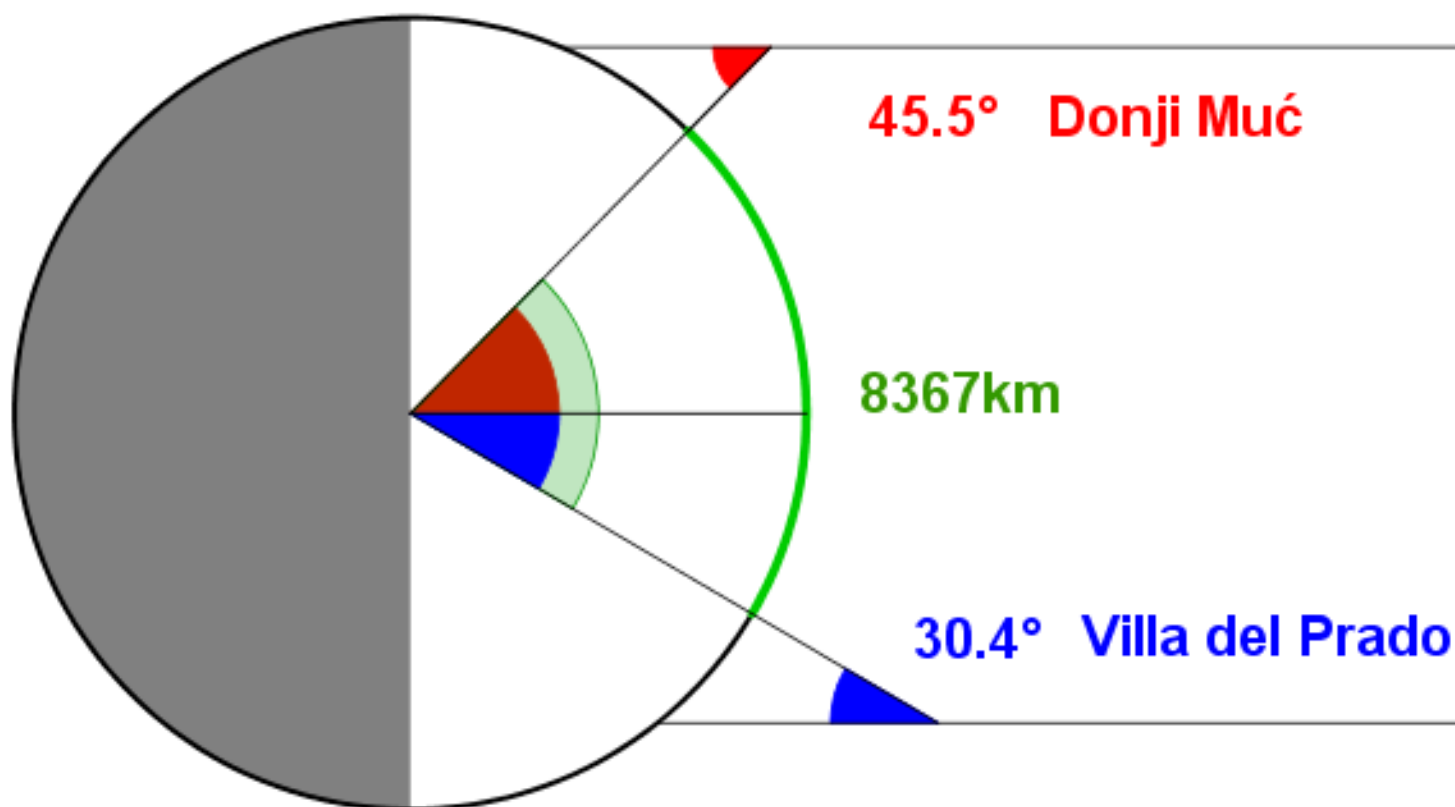


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Donji Muć	Croatia	oš kneza Branimira	43.694	16.462

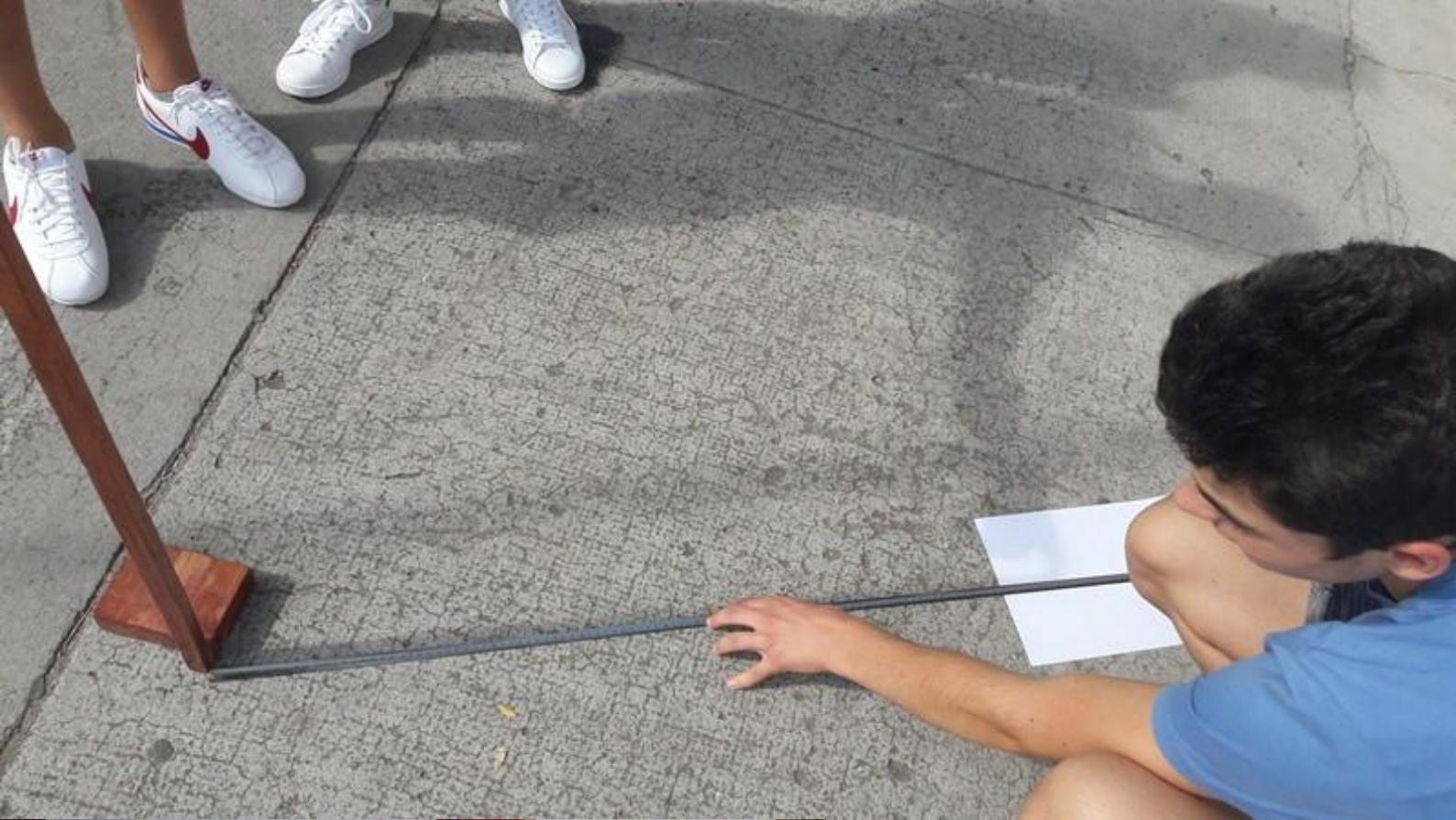
Date	Gnomon	Shadow	Angle
20 September 2018	100.0 cm	101.8 cm	45.5 °
27 September 2018	100 cm	109.3 cm	47.5 °

20/09/2018 (Donji Muć-Croatia) Latitude: 43.694°

20/09/2018 (Villa del Prado-Argentina) Latitude: -31.615°



$$\text{circumference} = \frac{360^\circ \times 8367\text{km}}{45.5^\circ + 30.4^\circ} = 39685 \text{ km}$$



Guarne, Colombia

September 2018

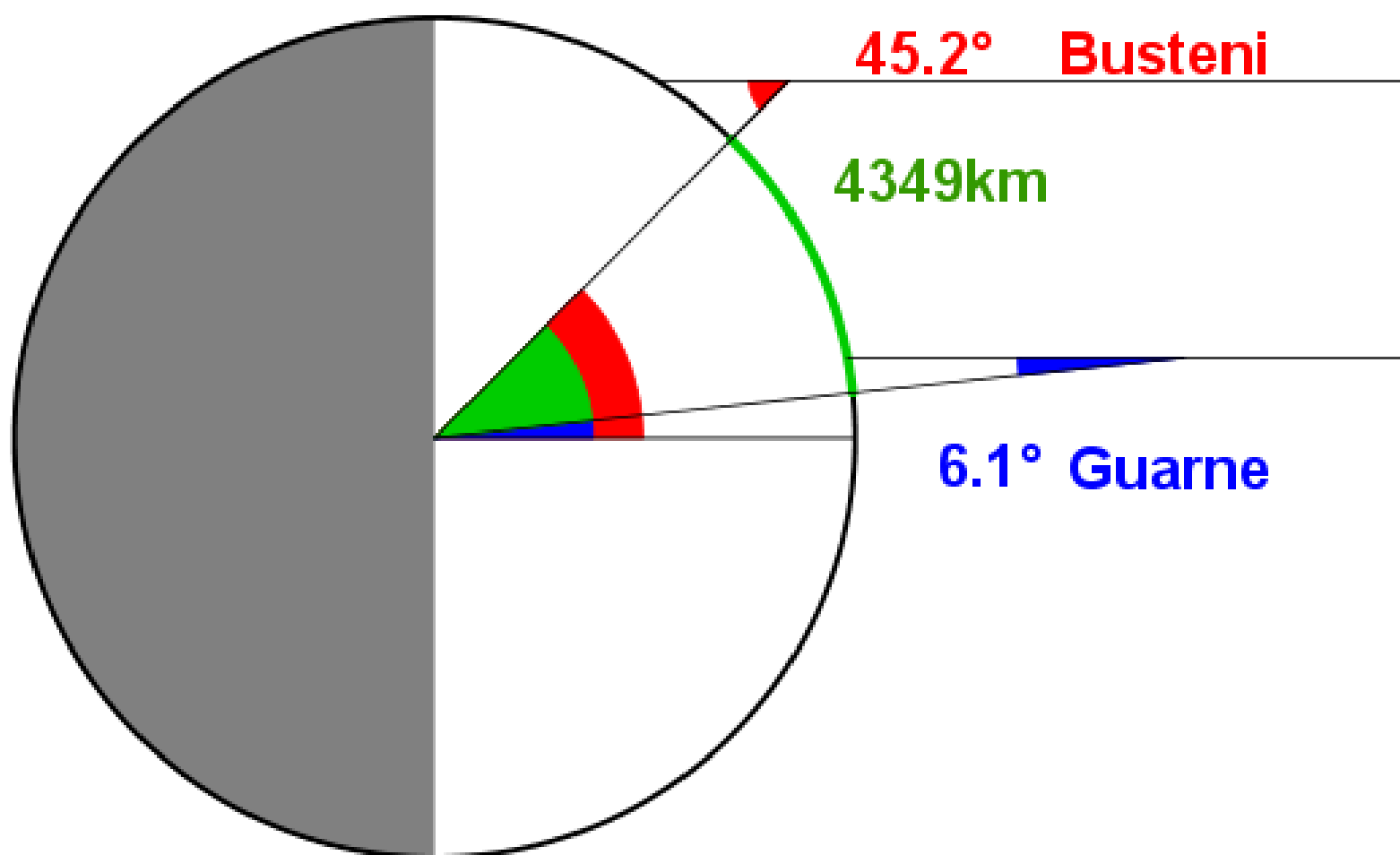


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Guarne	Colombia	Grupo Astrofanáticos	6.274	-75.449

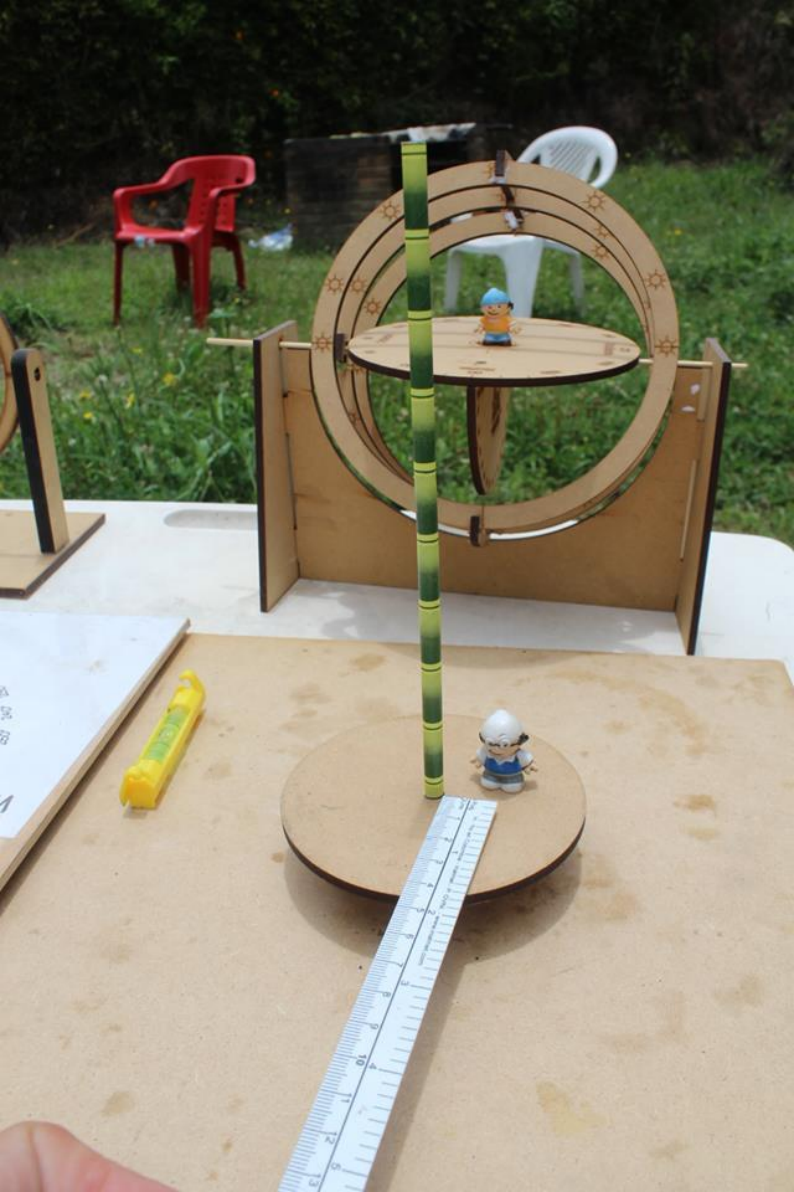
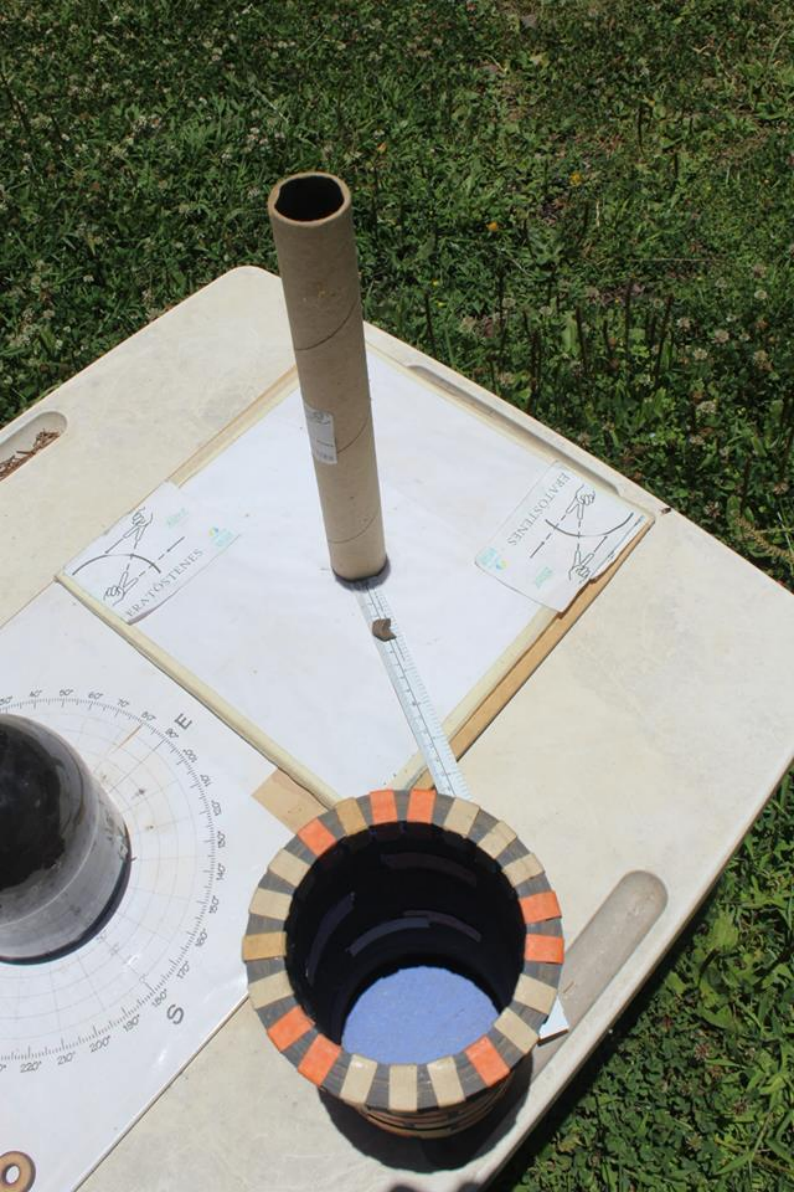
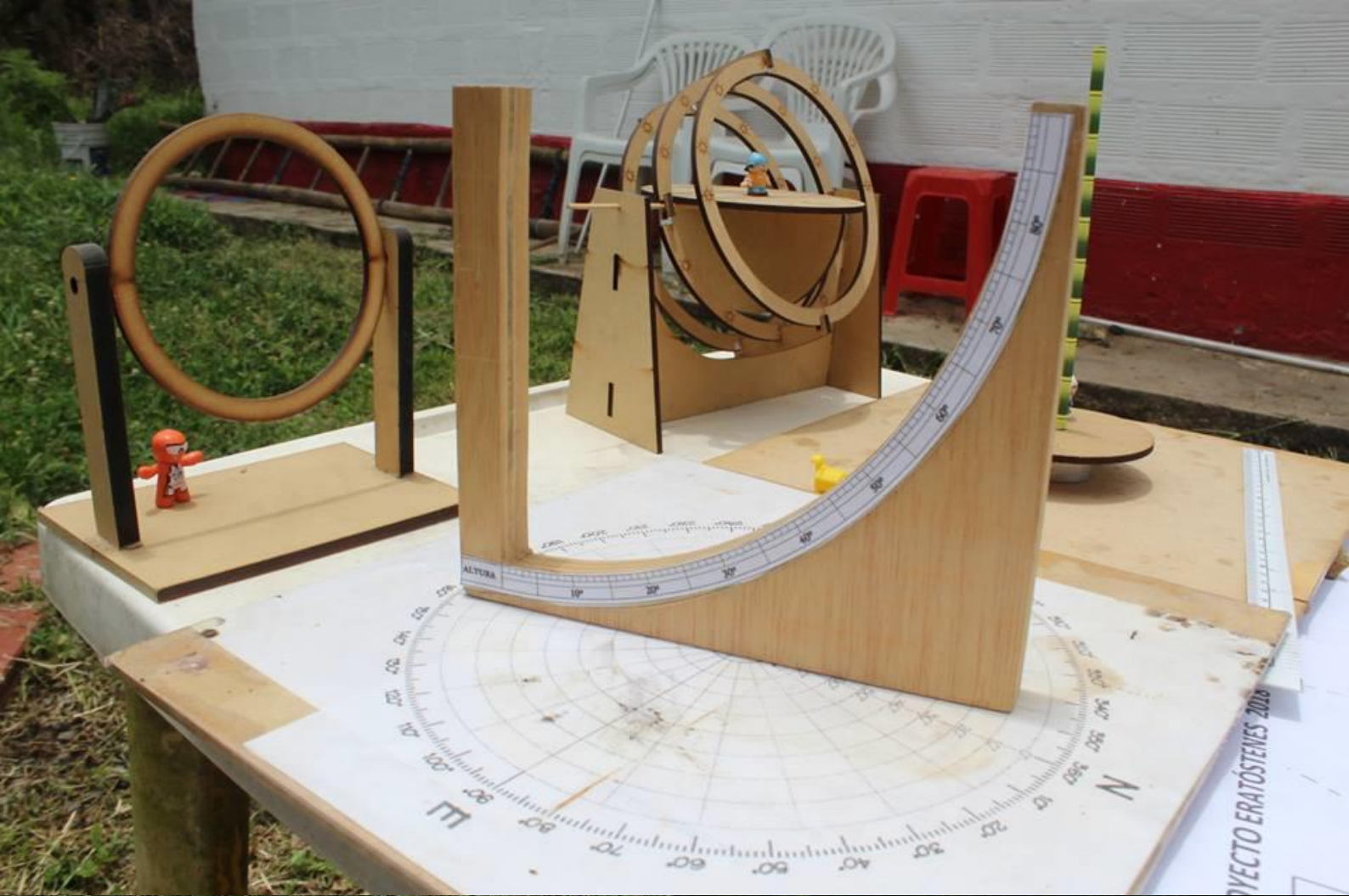
Date	Gnomon	Shadow	Angle
03 September 2018	31 cm	-0.9 cm	-1.7 °
06 September 2018	100 cm	0 cm	0 °
22 September 2018	19.6 cm	2.1 cm	6.1 °
23 September 2018	19.6 cm	2.1 cm	6.1 °

22/09/2018 (Busteni-Romania) Latitude: 45.416°

22/09/2018 (Guarne-Colombia) Latitude: 6.274°



$$\text{circumference} = \frac{360^\circ \times 4349\text{km}}{45.2^\circ - 6.1^\circ} = 40042 \text{ km}$$



Itajubá, Brazil

September 2018

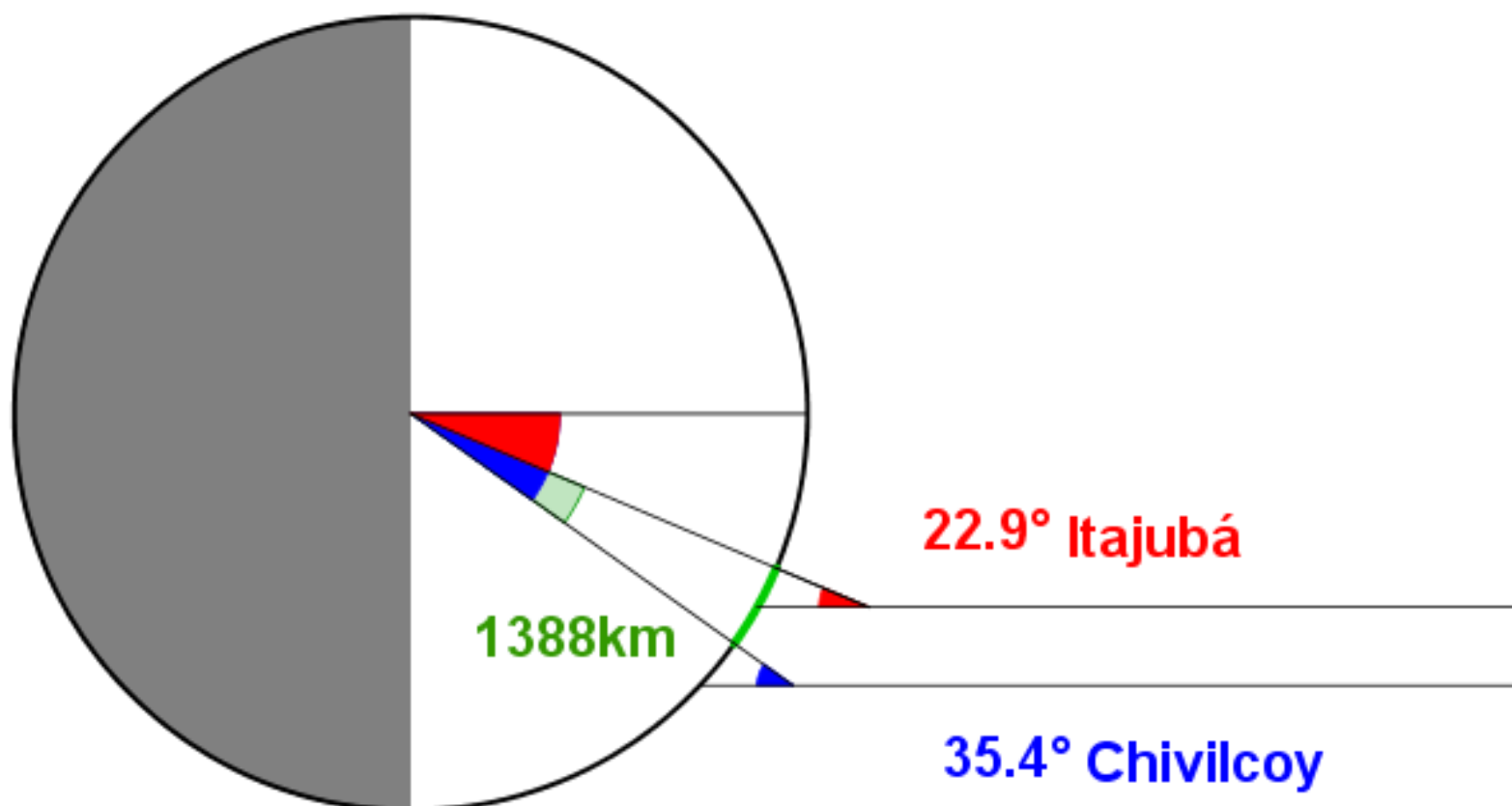


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Itajubá	Brazil	Universidade Federal de Itajubá	-22.415	-45.449

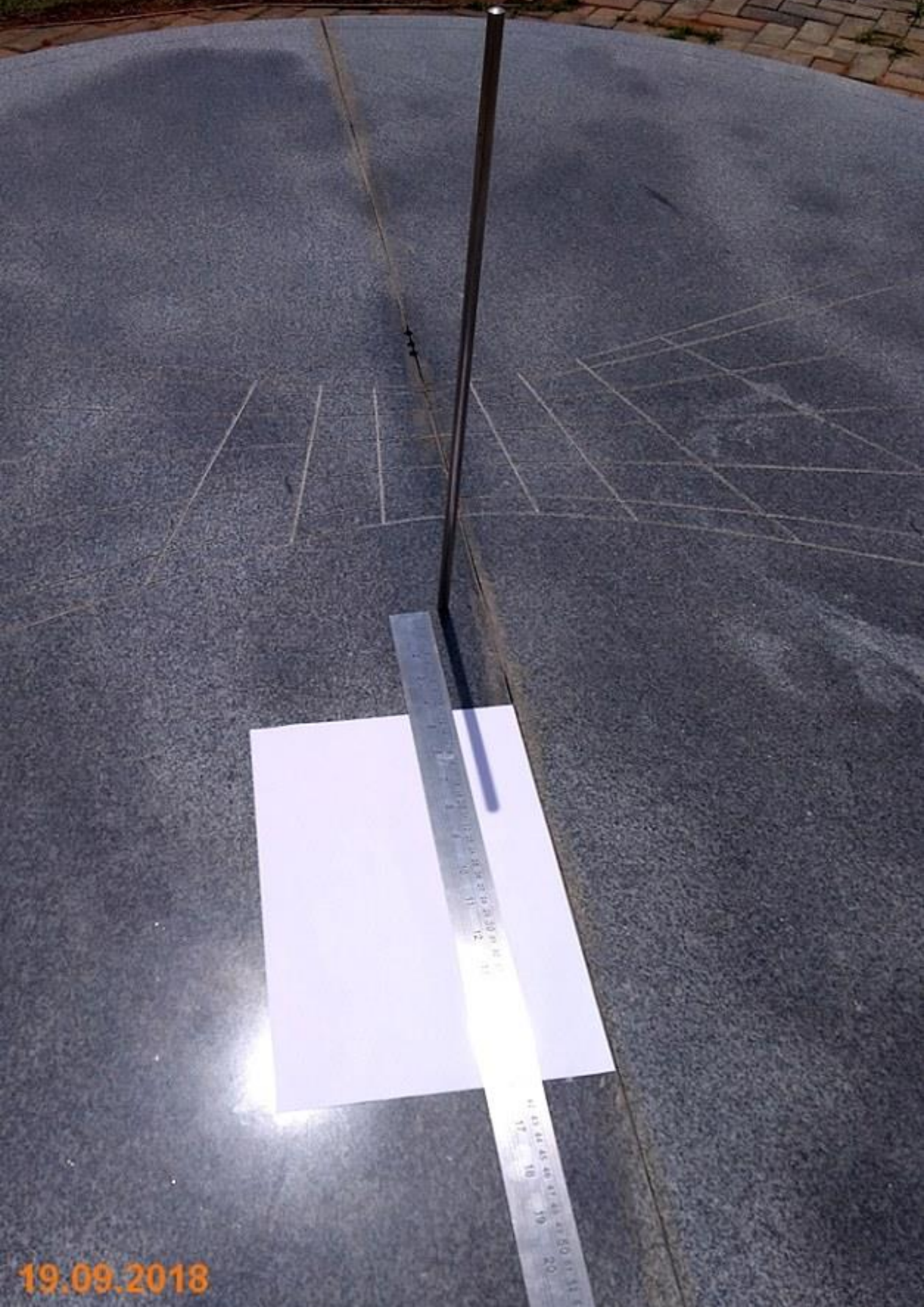
Date	Gnomon	Shadow	Angle
12 September 2018	47.3 cm	-23.7 cm	-26.6 °
19 September 2018	47.3 cm	-21.0 cm	-23.9 °
21 September 2018	47.3 cm	-20 cm	-22.9 °

21/09/2018 (Itajubá-Brazil) Latitude: -22.415°

21/09/2018 (Chivilcoy-Argentina) Latitude: -34.911°



$$\text{circumference} = \frac{360^\circ \times 1388\text{km}}{35.4^\circ - 22.9^\circ} = 39974 \text{ km}$$



19.09.2018

Lafrançaise, France

September 2018

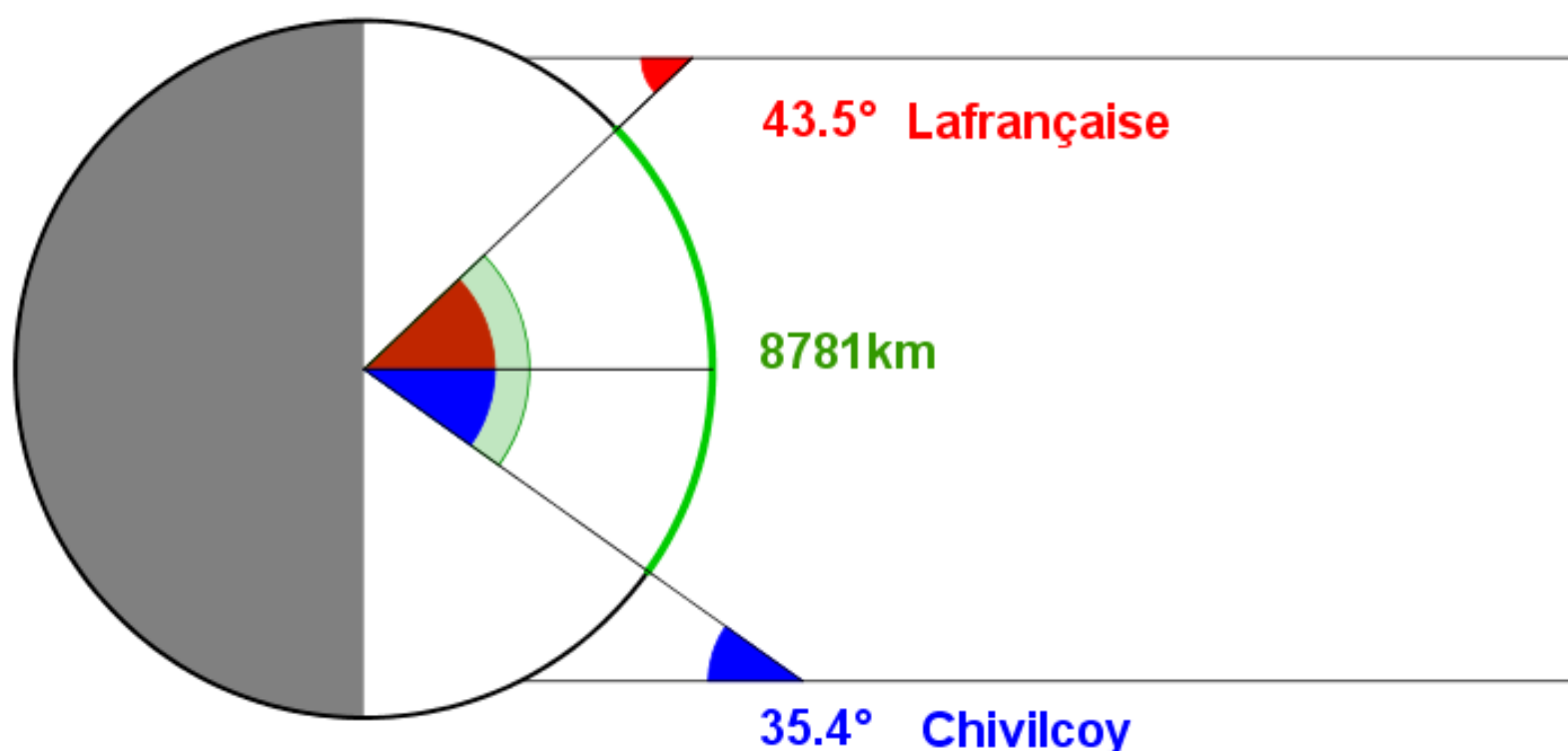


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Lafrançaise	France	Collège Antonin Perbosc	44.127	1.237

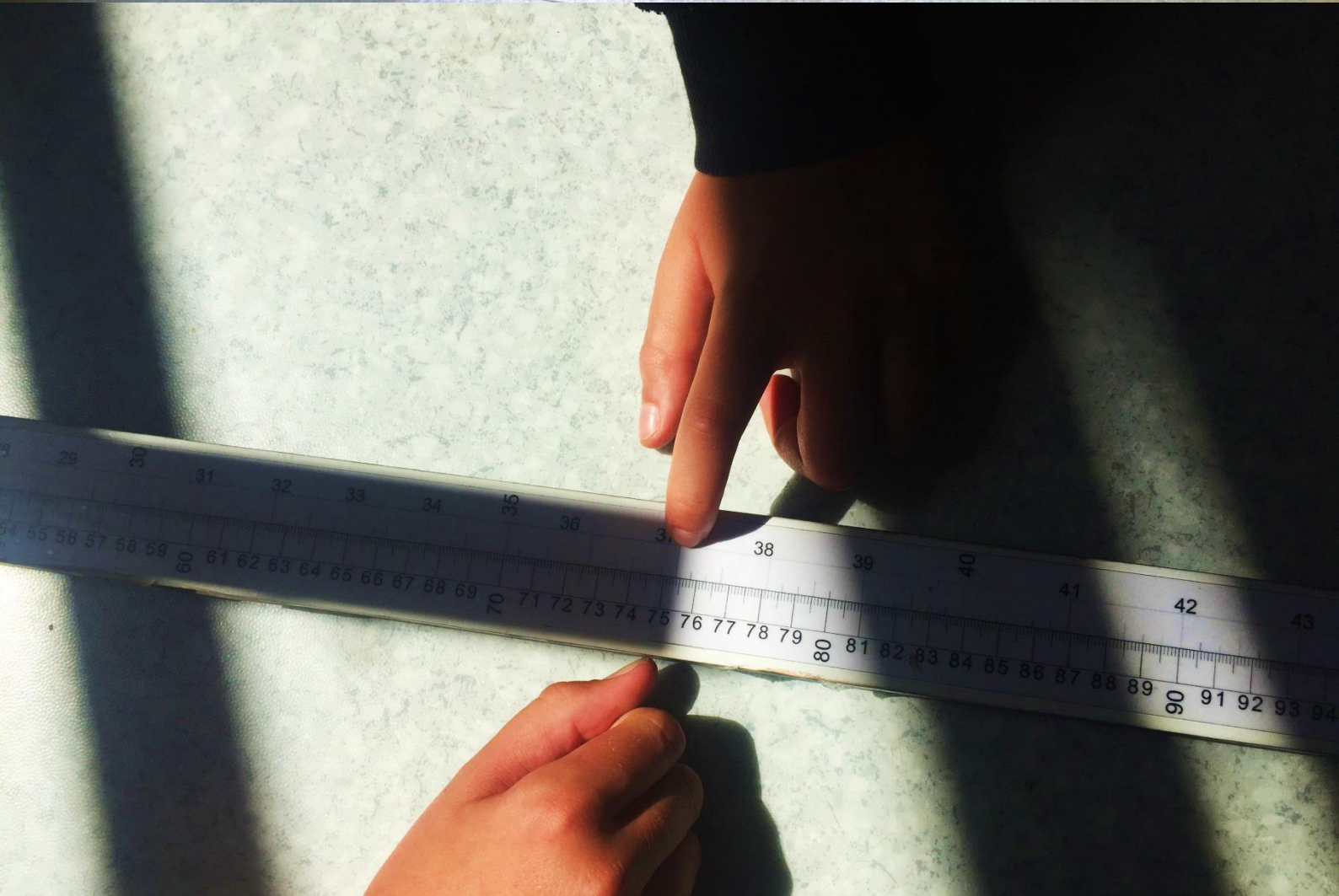
Date	Gnomon	Shadow	Angle
04 September 2018	100 cm	75.3 cm	37 °
06 September 2018	100 cm	78.2 cm	38 °
07 September 2018	100 cm	79.5 cm	38.5 °
10 September 2018	100.0 cm	82.0 cm	39.4 °
13 September 2018	100 cm	85 cm	40.4 °
14 September 2018	100.0 cm	87.5 cm	41.2 °
17 September 2018	100 cm	88.6 cm	41.5 °
20 September 2018	100.0 cm	93.3 cm	43.0 °
21 September 2018	100 cm	95 cm	43.5 °
24 September 2018	100 cm	98.4 cm	44.5 °
27 September 2018	100 cm	102 cm	45.6 °
28 September 2018	100 cm	103.2 cm	45.9 °

21/09/2018 (Lafrançaise-France) Latitude: 44.127°

21/09/2018 (Chivilcoy-Argentina) Latitude: -34.911°



$$\text{circumference} = \frac{360^\circ \times 8781\text{km}}{43.5^\circ + 35.4^\circ} = 40065 \text{ km}$$



Mărgineni, Romania

September 2018

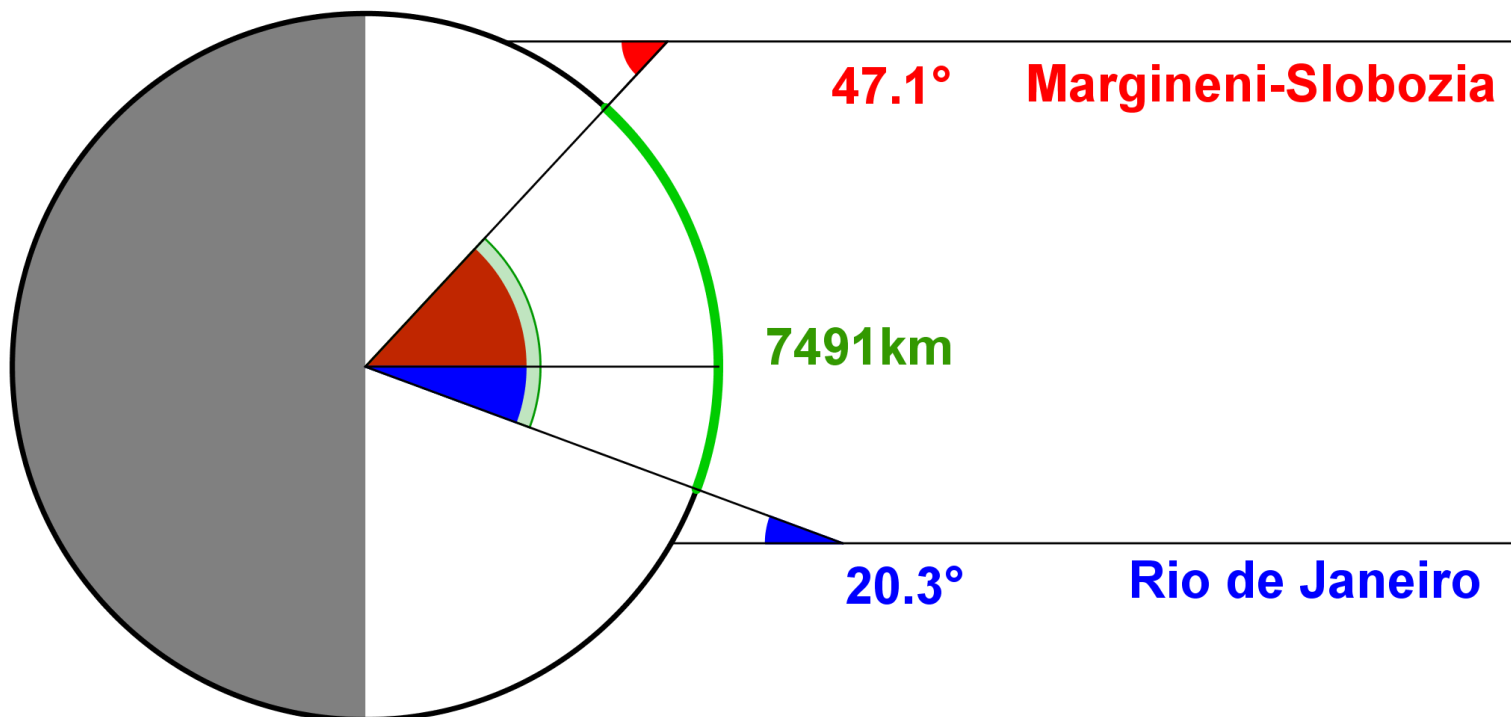


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Mărgineni	Romania	Gh. Popescu School	44.533	24.554

Date	Gnomon	Shadow	Angle
24 September 2018	100 cm	107.5 cm	47.1 °

24/09/2018 (Margineni-Slobozia-Romania) Latitude: 44.533°

24/09/2018 (Rio de Janeiro-Brazil) Latitude: -22.89°



$$\text{circumference} = \frac{360^\circ \times 7491\text{km}}{47.1^\circ + 20.3^\circ} = 40011 \text{ km}$$



Secondary School Gh. Popescu, ROMANIA
24.09.2018




Secondary School Gh. Popescu, ROMANIA
24.09.2018

Mohammedia, Tunisia

September 2018

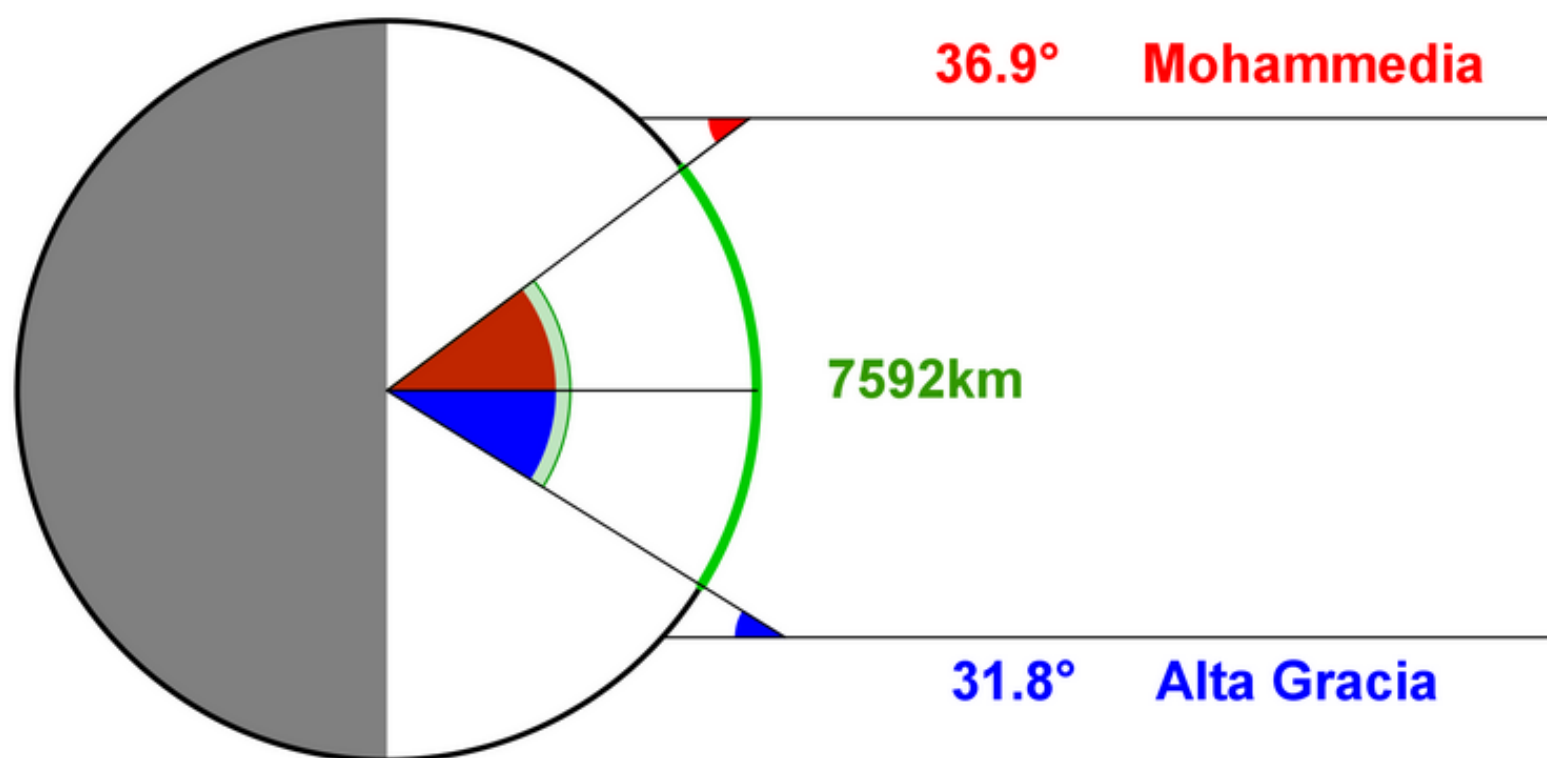


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Mohammedia	Tunisia	Lycée M'hamdia	36.678	10.152

Date	Gnomon	Shadow	Angle
21 September 2018	64 cm	48 cm	36.9 °

21/09/2018 (Mohammedia-Tunisia) Latitude: 36.678°

21/09/2018 (Alta Gracia-Argentina) Latitude: -31.658°




$$\text{circumference} = \frac{360^\circ \times 7592\text{km}}{36.9^\circ + 31.8^\circ} = 39783 \text{ km}$$



Nis, Serbia

September 2018

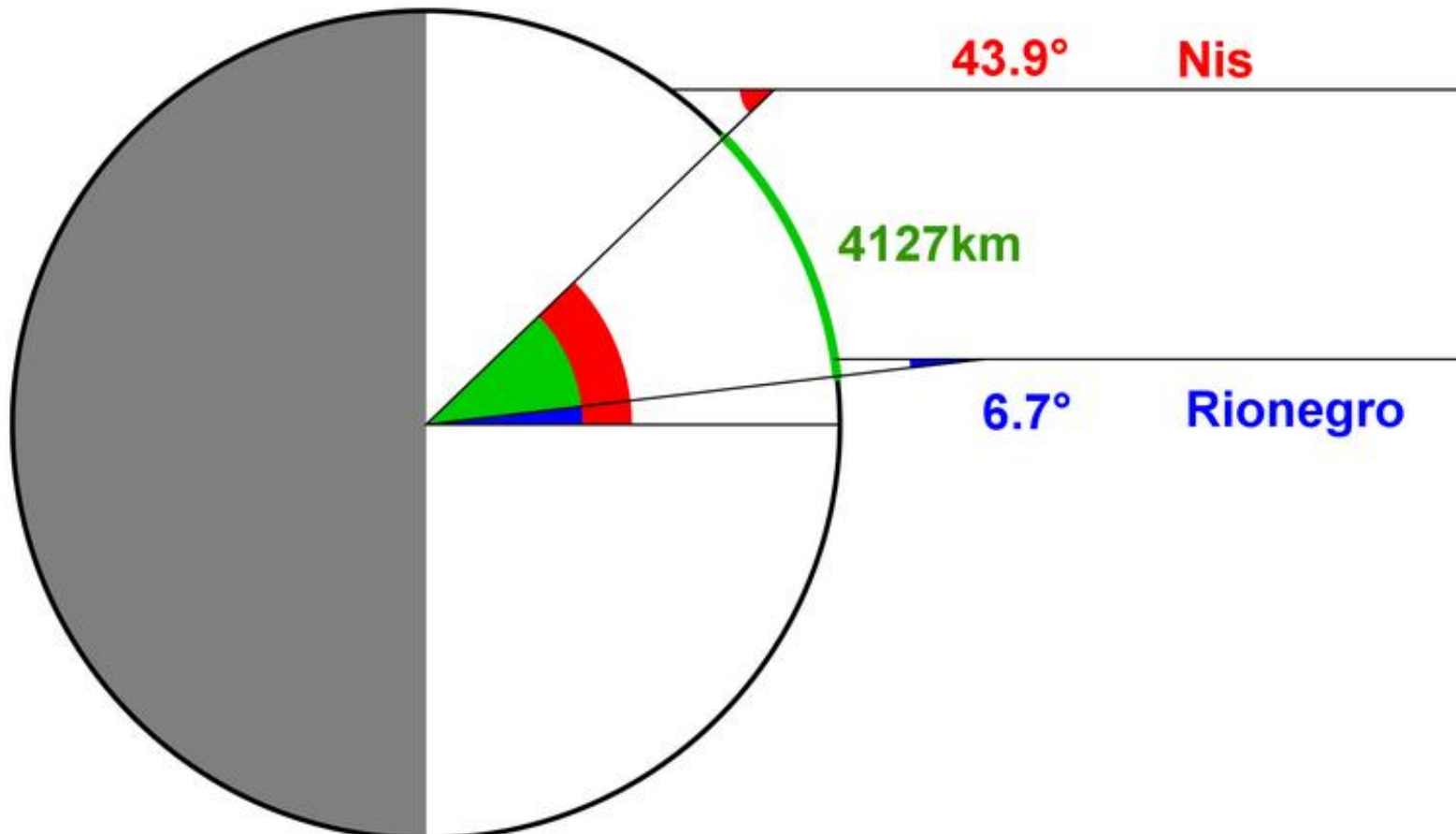


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Nis	Serbia	Gimnazija Svetozar Markovic	43.300	21.883

Date	Gnomon	Shadow	Angle
19 September 2018	100.0 cm	87.8 cm	41.3 °
21 September 2018	100 cm	96.3 cm	43.9 °

21/09/2018 (Nis-Serbia) Latitude: 43.312°

21/09/2018 (Rionegro-Colombia) Latitude: 6.163°




$$\text{circumference} = \frac{360^\circ \times 4127\text{km}}{43.9^\circ - 6.7^\circ} = 39939 \text{ km}$$



Petroupoli, Greece

September 2018

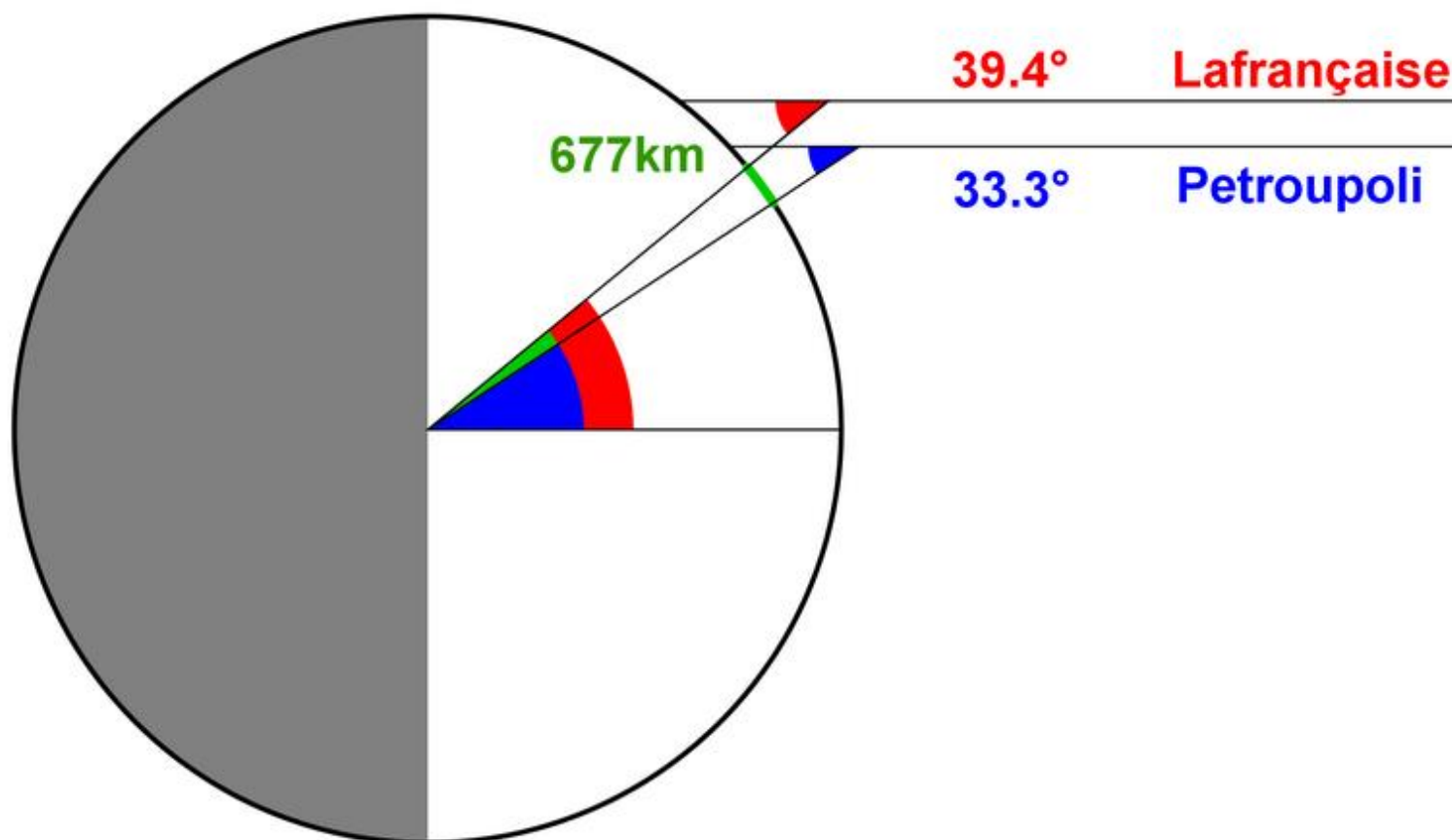


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Petroupoli	Greece	4o Junior High School	38.036	23.674

Date	Gnomon	Shadow	Angle
06 September 2018	52.3 cm	32.2 cm	31.6 °
10 September 2018	52.3 cm	34.4 cm	33.3 °
24 September 2018	52.3 cm	41.5 cm	38.4 °

10/09/2018 (Lafrançaise-France) Latitude: 44.127°

10/09/2018 (Petroupoli-Greece) Latitude: 38.036°



$$\text{circumference} = \frac{360^\circ \times 677\text{km}}{39.4^\circ - 33.3^\circ} = 39954 \text{ km}$$



Piraeus, Greece

September 2018

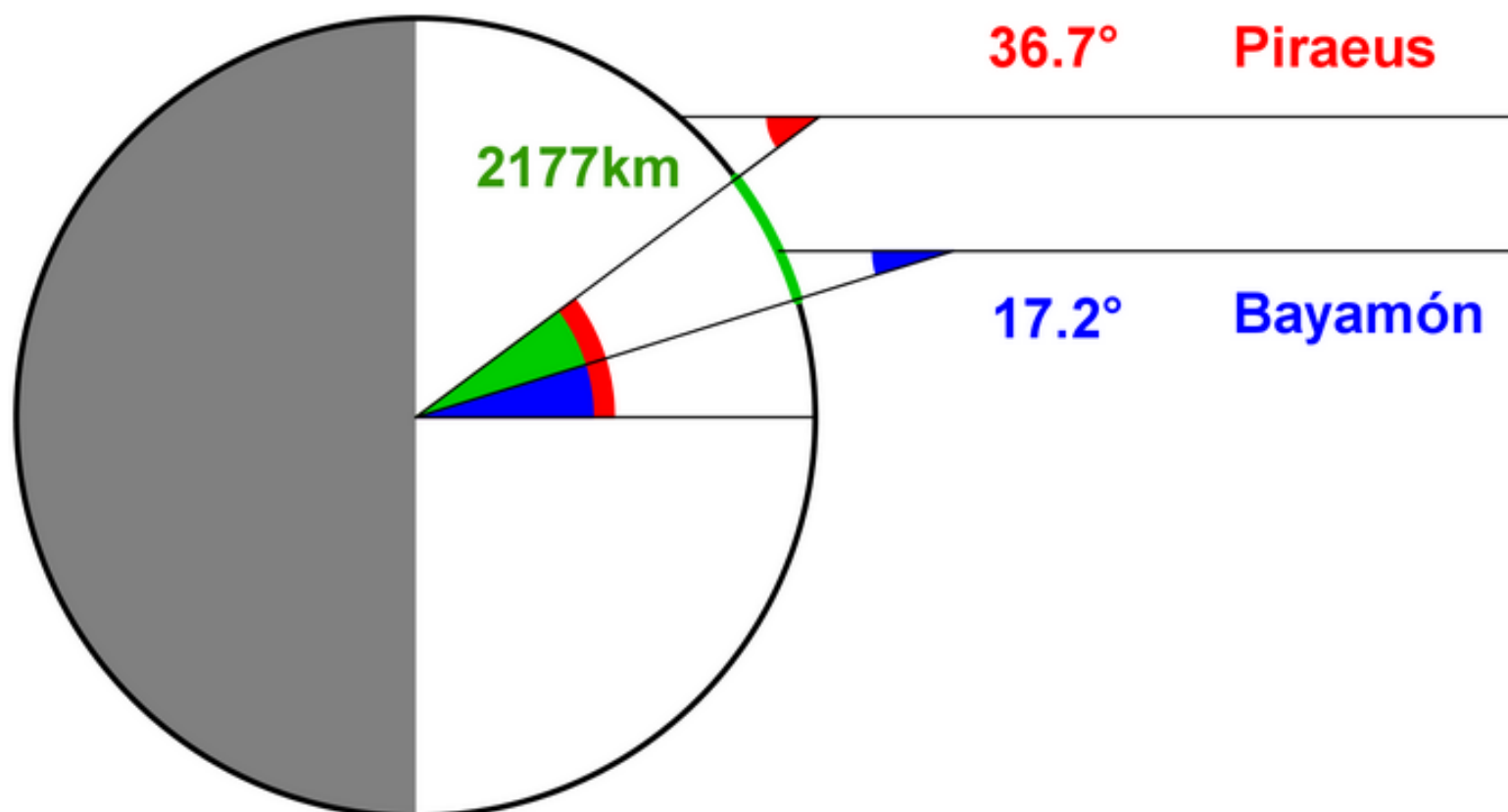


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Piraeus	Greece	2nd Junior High School of Korydallos	37.977	23.655

Date	Gnomon	Shadow	Angle
24 September 2018	100 cm	74.5 cm	36.7 °

24/09/2018 (Piraeus-Greece) Latitude: 37.977°

24/09/2018 (Bayamón-Puerto Rico) Latitude: 18.383°

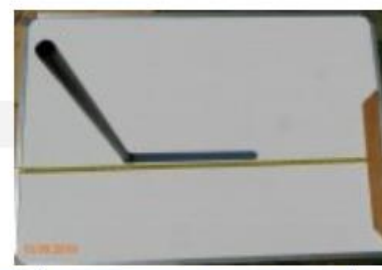


$$\text{circumference} = \frac{360^\circ \times 2177\text{km}}{36.7^\circ - 17.2^\circ} = 40191 \text{ km}$$



Piranguinho, Brazil

September 2018

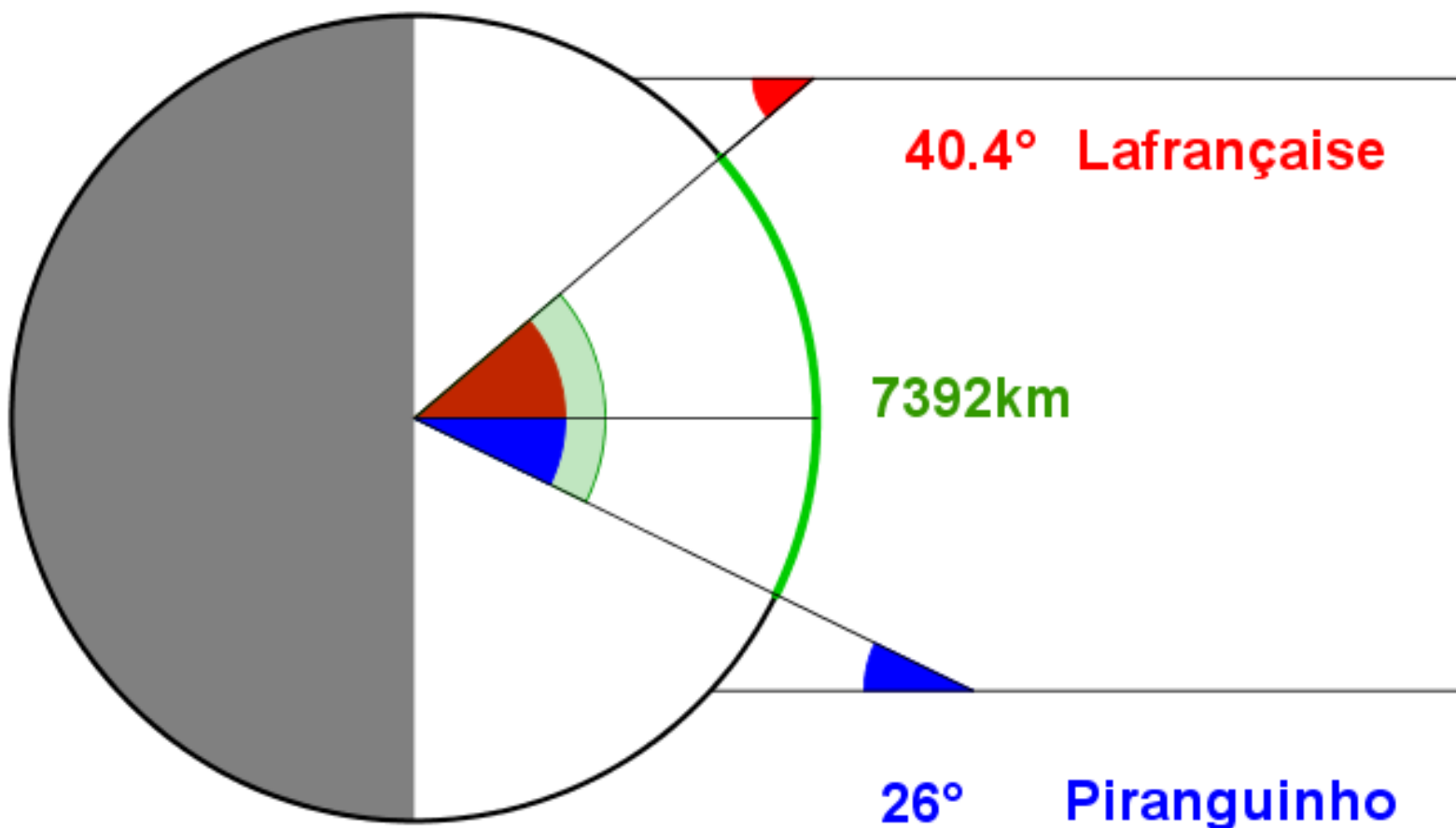


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Piranguinho	Brazil	Universidade Federal de Itajubá	-22.411	-45.535

Date	Gnomon	Shadow	Angle
07 September 2018	70 cm	-38 cm	-28.5 °
10 September 2018	70 cm	-36.3 cm	-27.4 °
24 September 2018	70 cm	-28.1 cm	-21.9 °

13/09/2018 (Lafrançaise-France) Latitude: 44.127°

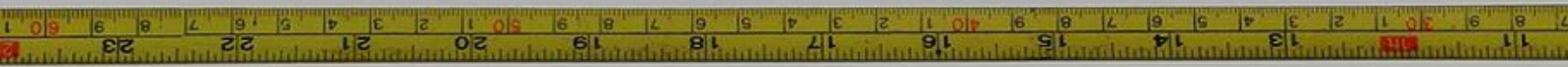
13/09/2018 (Piranguinho-Brazil) Latitude: -22.411°



$$\text{circumference} = \frac{360^\circ \times 7392\text{km}}{40.4^\circ + 26^\circ} = 40077 \text{ km}$$



24.09.2018




24.09.2018

Pogana, Romania

September 2018

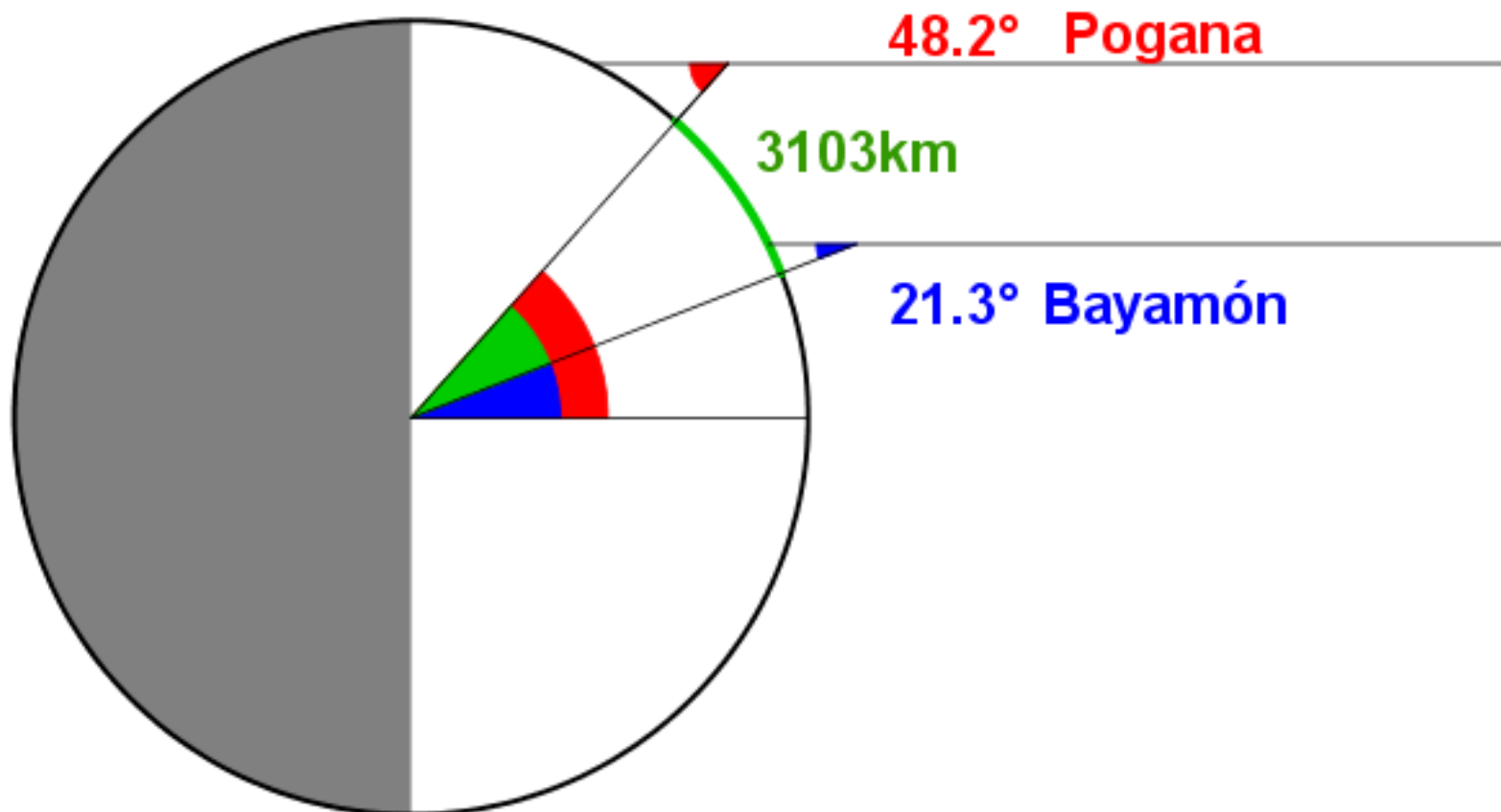


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Pogana	Romania	Scoala Gimnaziala Nr.1 Pogana	46.313	27.575

Date	Gnomon	Shadow	Angle
28 September 2018	80 cm	89.5 cm	48.2 °

28/09/2018 (Pogana-Romania) Latitude: 46.313°

28/09/2018 (Bayamón-Puerto Rico) Latitude: 18.383°




$$\text{circumference} = \frac{360^\circ \times 3103\text{km}}{48.2^\circ - 21.3^\circ} = 41527 \text{ km}$$



Pylos, Greece

September 2018

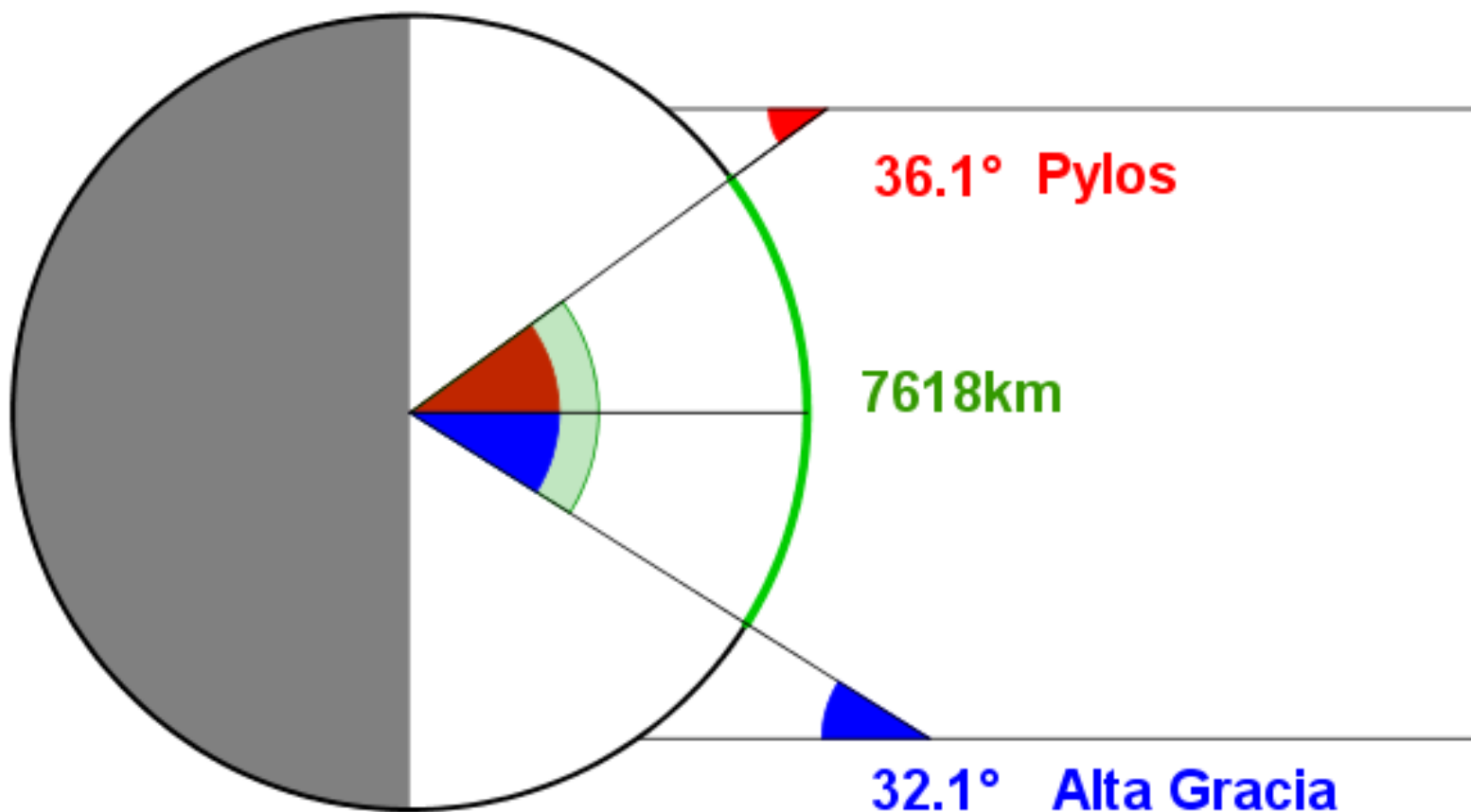


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Pylos	Greece	1st Kindergarten of Pylos	36.911	21.694

Date	Gnomon	Shadow	Angle
20 September 2018	70.0 cm	51.0 cm	36.1 °

20/09/2018 (Pylos-Greece) Latitude: 36.911°

20/09/2018 (Alta Gracia-Argentina) Latitude: -31.658°



$$\text{circumference} = \frac{360^\circ \times 7618\text{km}}{36.1^\circ + 32.1^\circ} = 40212 \text{ km}$$



20/09/2018




20/09/2018

Quitilipi, Argentina

September 2018

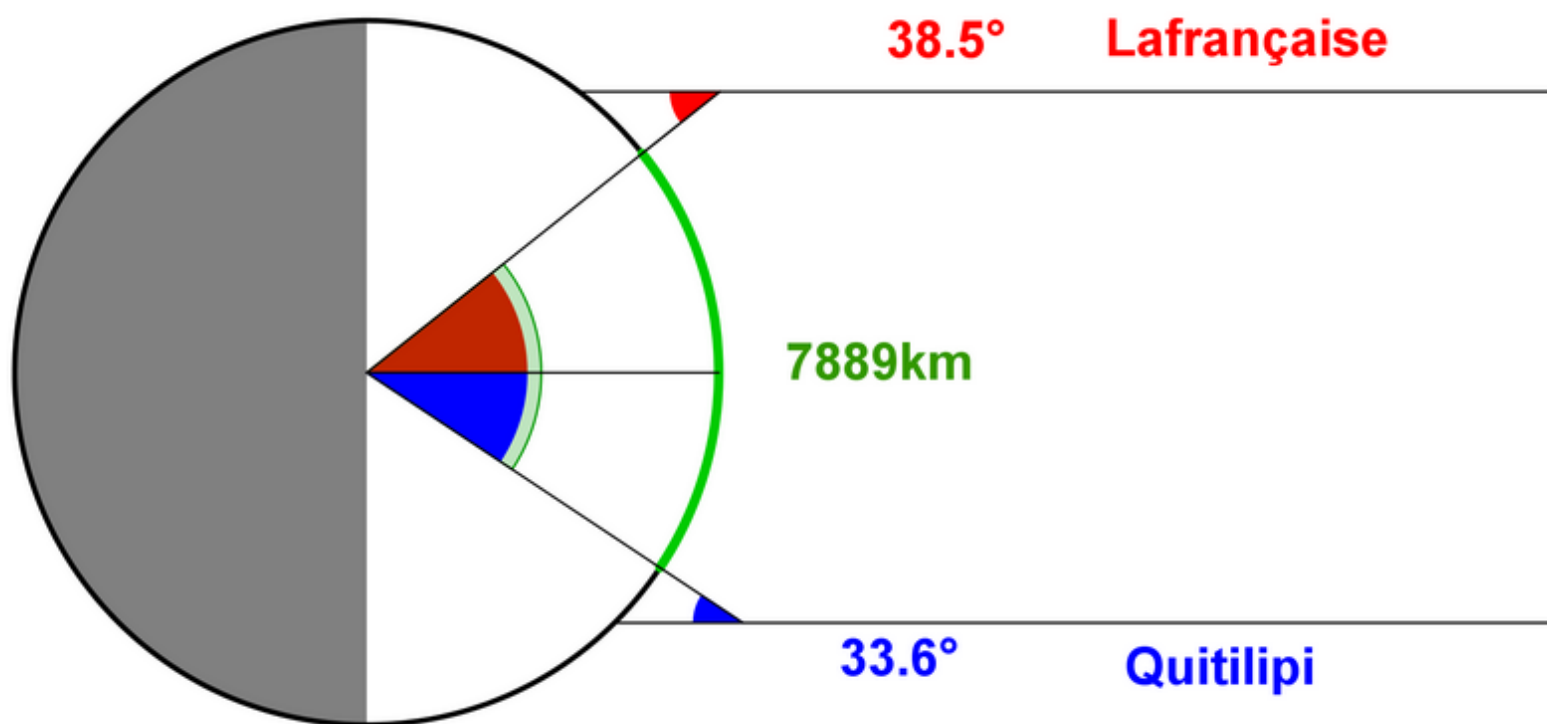


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Quitilipi	Argentina	IES "Juan José Gualberto Pisarello"	-26.880	-60.219

Date	Gnomon	Shadow	Angle
07 September 2018	98.6 cm	-65.5 cm	-33.6 °
11 September 2018	98.6 cm	-62.2 cm	-32.2 °

07/09/2018 (Lafrançaise-France) Latitude: 44.127°

07/09/2018 (Quitilipi-Argentina) Latitude: -26.88°



$$\text{circumference} = \frac{360^\circ \times 7889\text{km}}{38.5^\circ + 33.6^\circ} = 39390 \text{ km}$$



Rio Cuarto, Argentina

September 2018

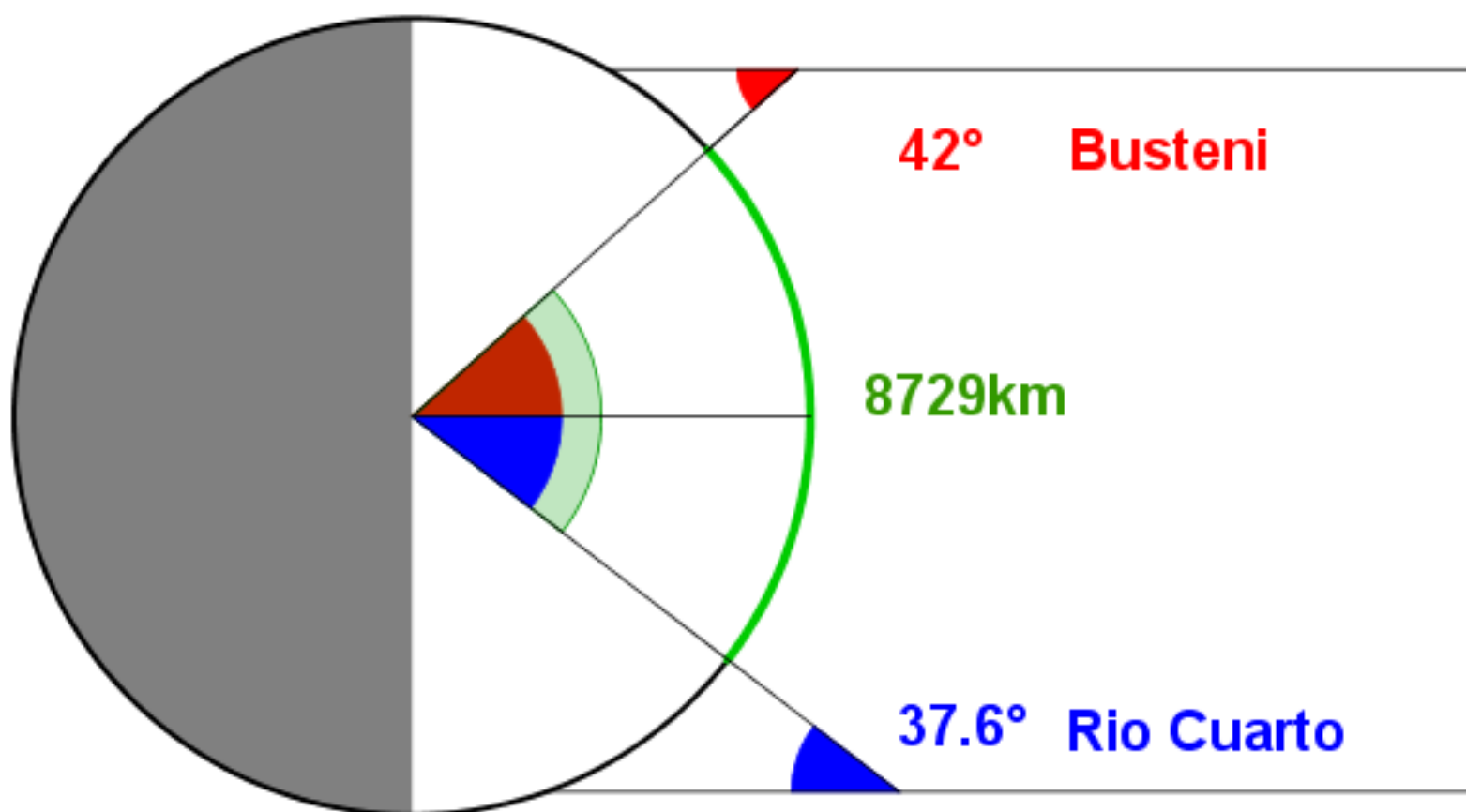


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio Cuarto	Argentina	Colegio Concordia	-33.149	-64.351

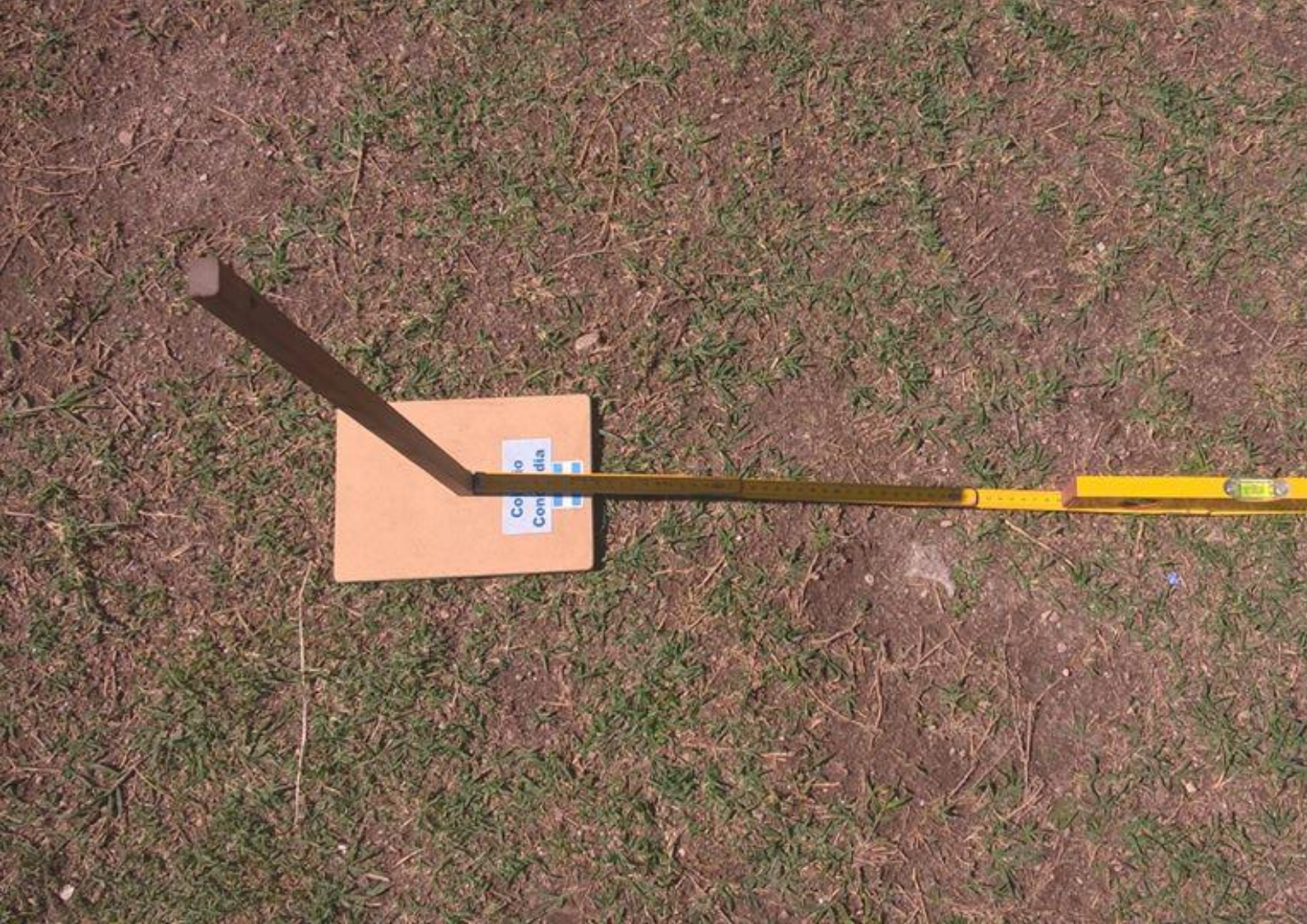
Date	Gnomon	Shadow	Angle
14 September 2018	52.5 cm	-40.5 cm	-37.6 °

14/09/2018 (Busteni-Romania) Latitude: 45.416°

14/09/2018 (Rio Cuarto-Argentina) Latitude: -33.149°



$$\text{circumference} = \frac{360^\circ \times 8729\text{km}}{42^\circ + 37.6^\circ} = 39478 \text{ km}$$



Rio de Janeiro, Brazil

September 2018

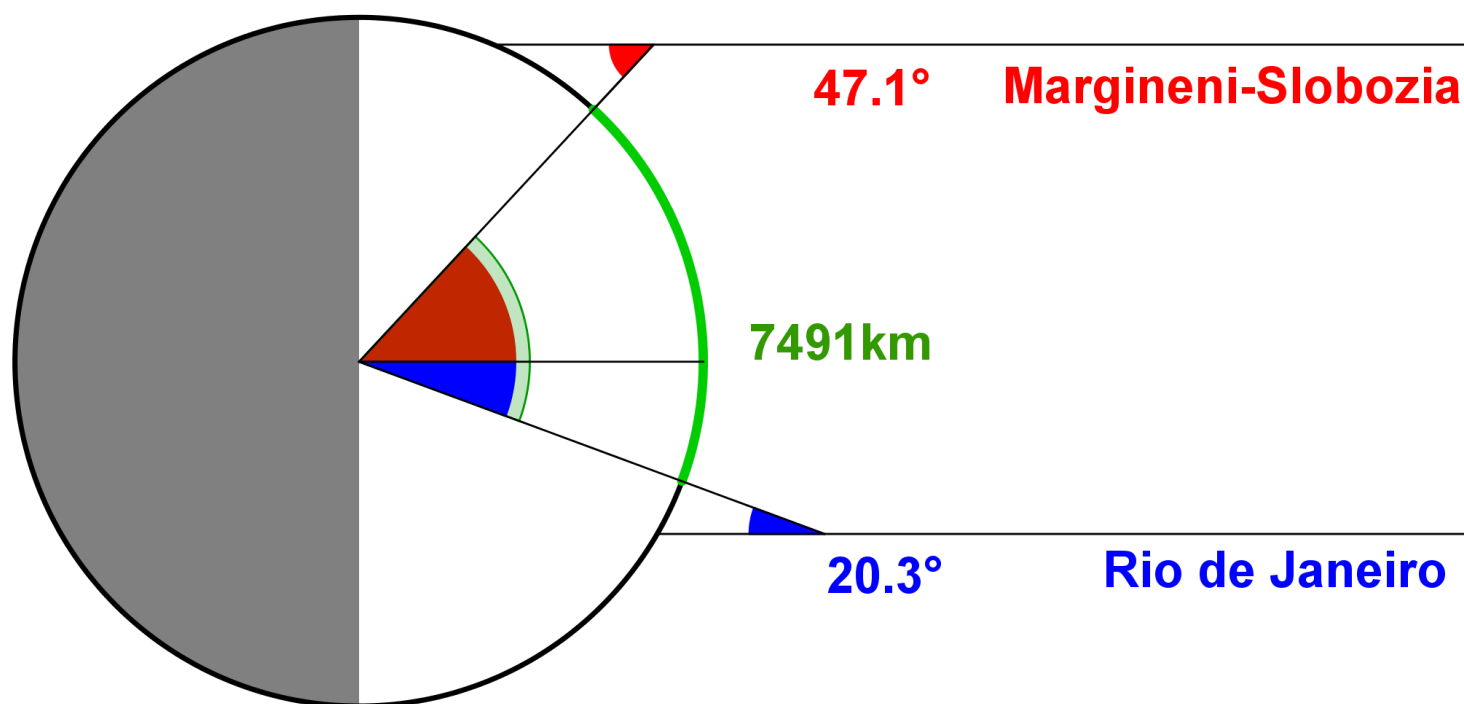


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	Centro Educacional Nosso Mundo	-22.890	-43.317

Date	Gnomon	Shadow	Angle
03 September 2018	100 cm	-53 cm	-27.9 °
05 September 2018	100 cm	-46 cm	-24.7 °
06 September 2018	100 cm	-46 cm	-24.7 °
12 September 2018	100.0 cm	-43.0 cm	-23.3 °
13 September 2018	100 cm	-44 cm	-23.7 °
14 September 2018	100.0 cm	-42.0 cm	-22.8 °
18 September 2018	100.0 cm	-39.0 cm	-21.3 °
19 September 2018	100.0 cm	-39.0 cm	-21.3 °
20 September 2018	100.0 cm	-39.0 cm	-21.3 °
21 September 2018	100 cm	-39 cm	-21.3 °
24 September 2018	100 cm	-37 cm	-20.3 °
25 September 2018	100 cm	-37 cm	-20.3 °
25 September 2018	100 cm	-39 cm	-21.3 °
27 September 2018	100 cm	-39 cm	-21.3 °

24/09/2018 (Margineni-Slobozia-Romania) Latitude: 44.533°

24/09/2018 (Rio de Janeiro-Brazil) Latitude: -22.89°




$$\text{circumference} = \frac{360^\circ \times 7491\text{km}}{47.1^\circ + 20.3^\circ} = 40011 \text{ km}$$



Rionegro, Colombia

September 2018

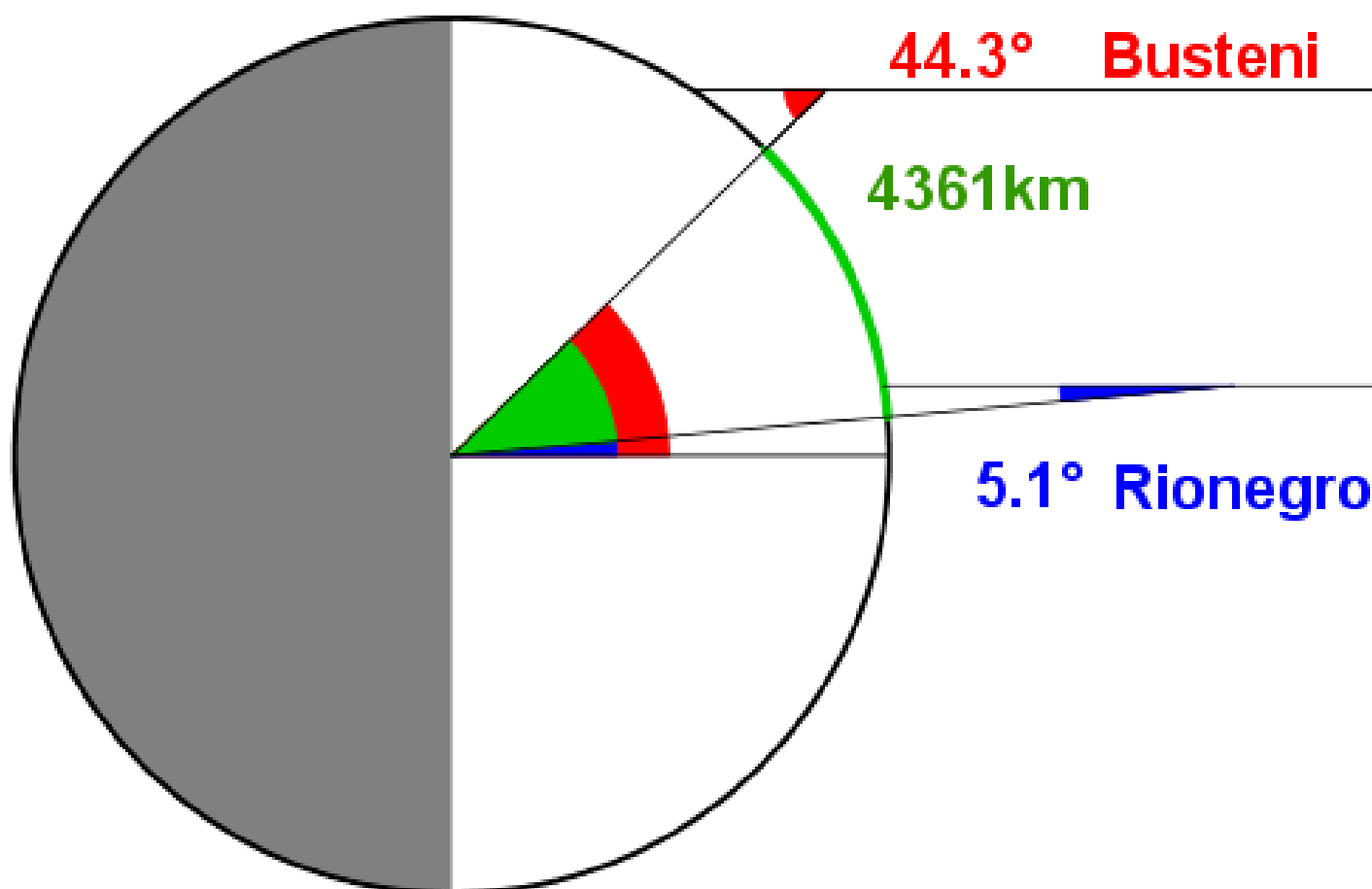


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rionegro	Colombia	Colegio Campestre San Nicolás	6.163	-75.359

Date	Gnomon	Shadow	Angle
20 September 2018	60.8 cm	5.4 cm	5.1 °
21 September 2018	22.2 cm	2.6 cm	6.7 °
24 September 2018	22 cm	2.8 cm	7.3 °
27 September 2018	22 cm	3 cm	7.8 °

20/09/2018 (Busteni-Romania) Latitude: 45.416°

20/09/2018 (Rionegro-Colombia) Latitude: 6.163°

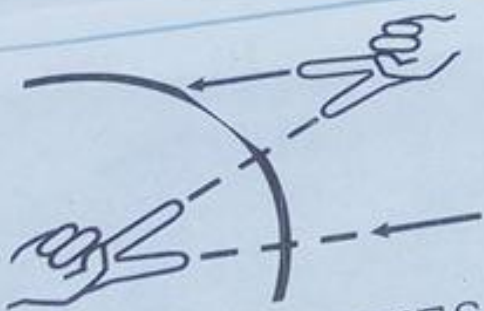


$$\text{circumference} = \frac{360^\circ \times 4361\text{km}}{44.3^\circ - 5.1^\circ} = 40050 \text{ km}$$

PROYECTO ERATÓSTENES 2018



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ERATÓSTENES



Midiendo el p...
Colegio Campestre San Nicolás 20...

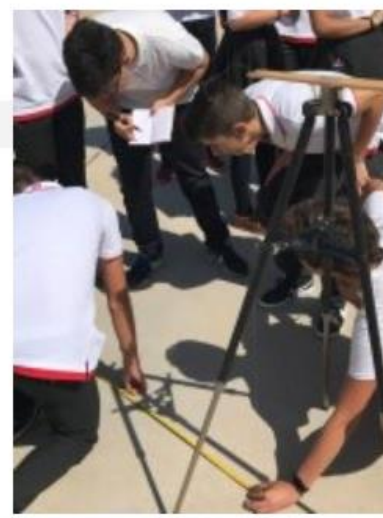
Nombre: _____ Fecha: _____
Latitud: _____ Longitud: _____ Longitud geográfica (G): _____


Fecha	Hora Medición solar	Longitud de la sombra (S)	Ángulo solar local	Dist. ciudad y ángulo solar	Ángulo solar entre lugares
	11:55				

360° (círculo completo) / ángulo (°) = circunferencia Tierra (C) / distancia entre lugares

Úbeda, Spain

September 2018

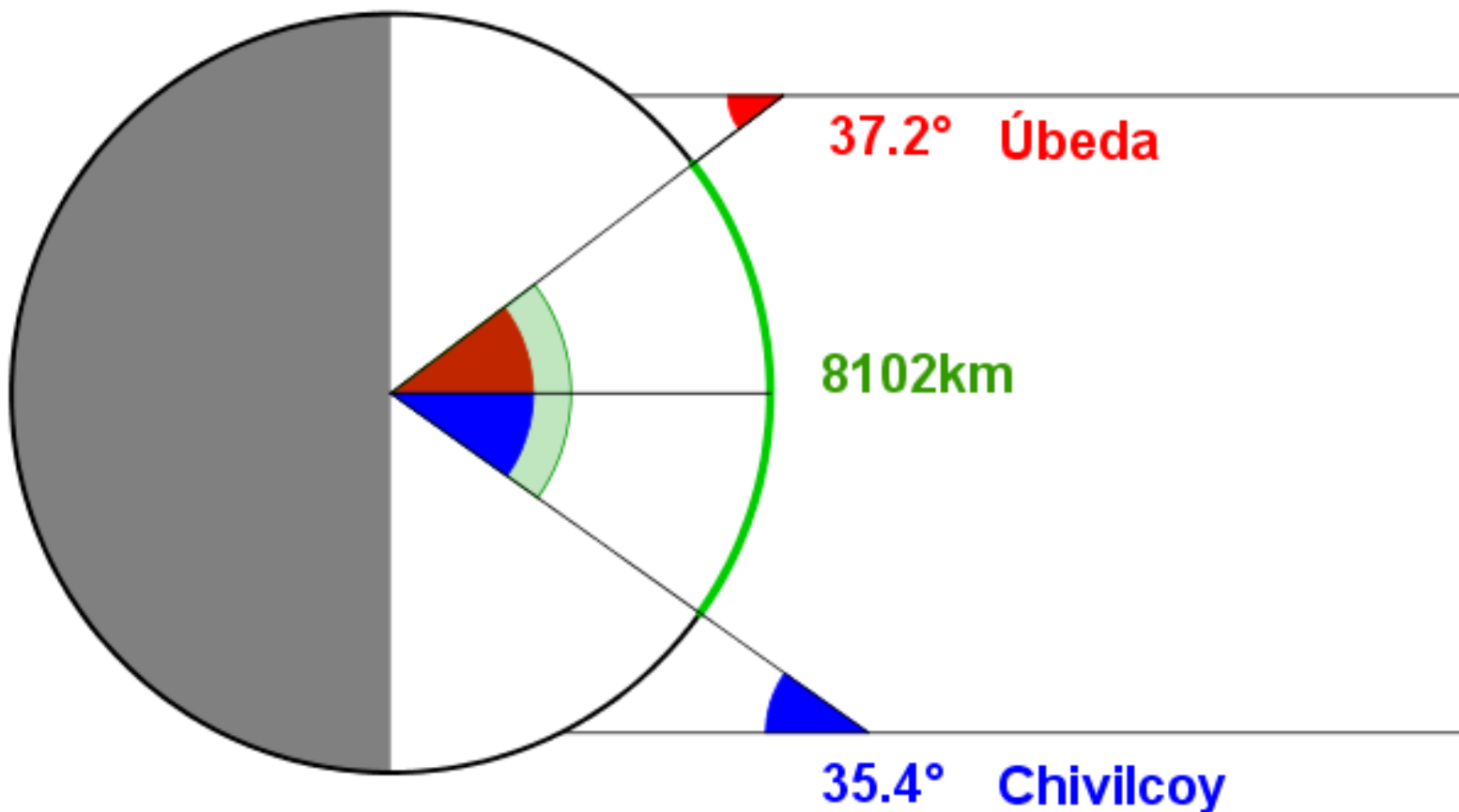


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Úbeda	Spain	Colegio Salesiano Santo Domingo Savio	38.017	-3.367

Date	Gnomon	Shadow	Angle
21 September 2018	120.1 cm	91 cm	37.2 °
22 September 2018	87.6 cm	66.7 cm	37.3 °
23 September 2018	87.6 cm	67.7 cm	37.7 °

21/09/2018 (Úbeda-Spain) Latitude: 38.017°

21/09/2018 (Chivilcoy-Argentina) Latitude: -34.911°




$$\text{circumference} = \frac{360^\circ \times 8102\text{km}}{37.2^\circ + 35.4^\circ} = 40175 \text{ km}$$



Villa del Prado, Argentina

September 2018

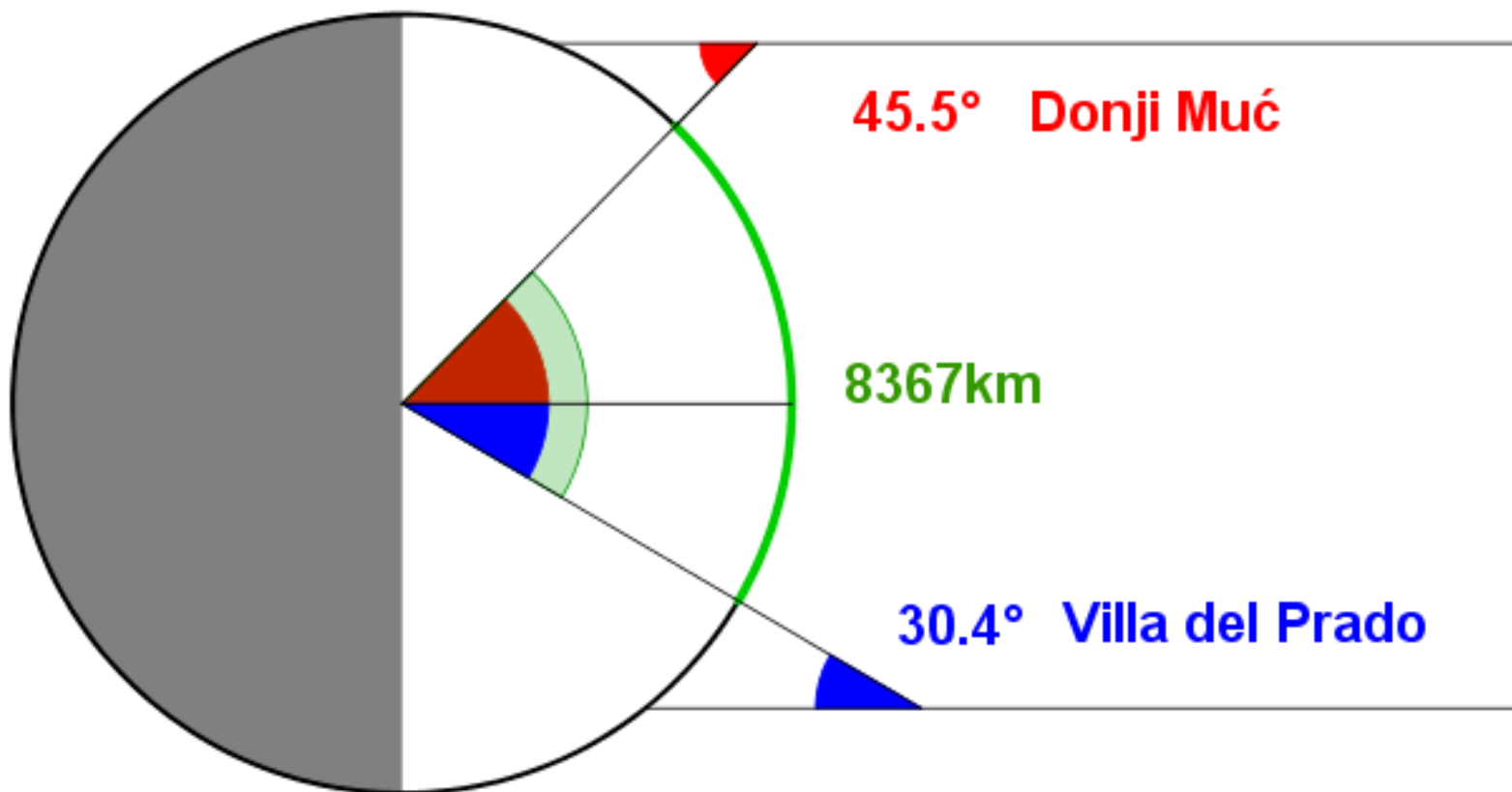


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Villa del Prado	Argentina	Jardin Jose Hernandez	-31.360	-64.230

Date	Gnomon	Shadow	Angle
20 September 2018	114.0 cm	-67.0 cm	-30.4 °

20/09/2018 (Donji Muć-Croatia) Latitude: 43.694°

20/09/2018 (Villa del Prado-Argentina) Latitude: -31.615°



$$\text{circumference} = \frac{360^\circ \times 8367\text{km}}{45.5^\circ + 30.4^\circ} = 39685 \text{ km}$$



Zagreb, Croatia

September 2018

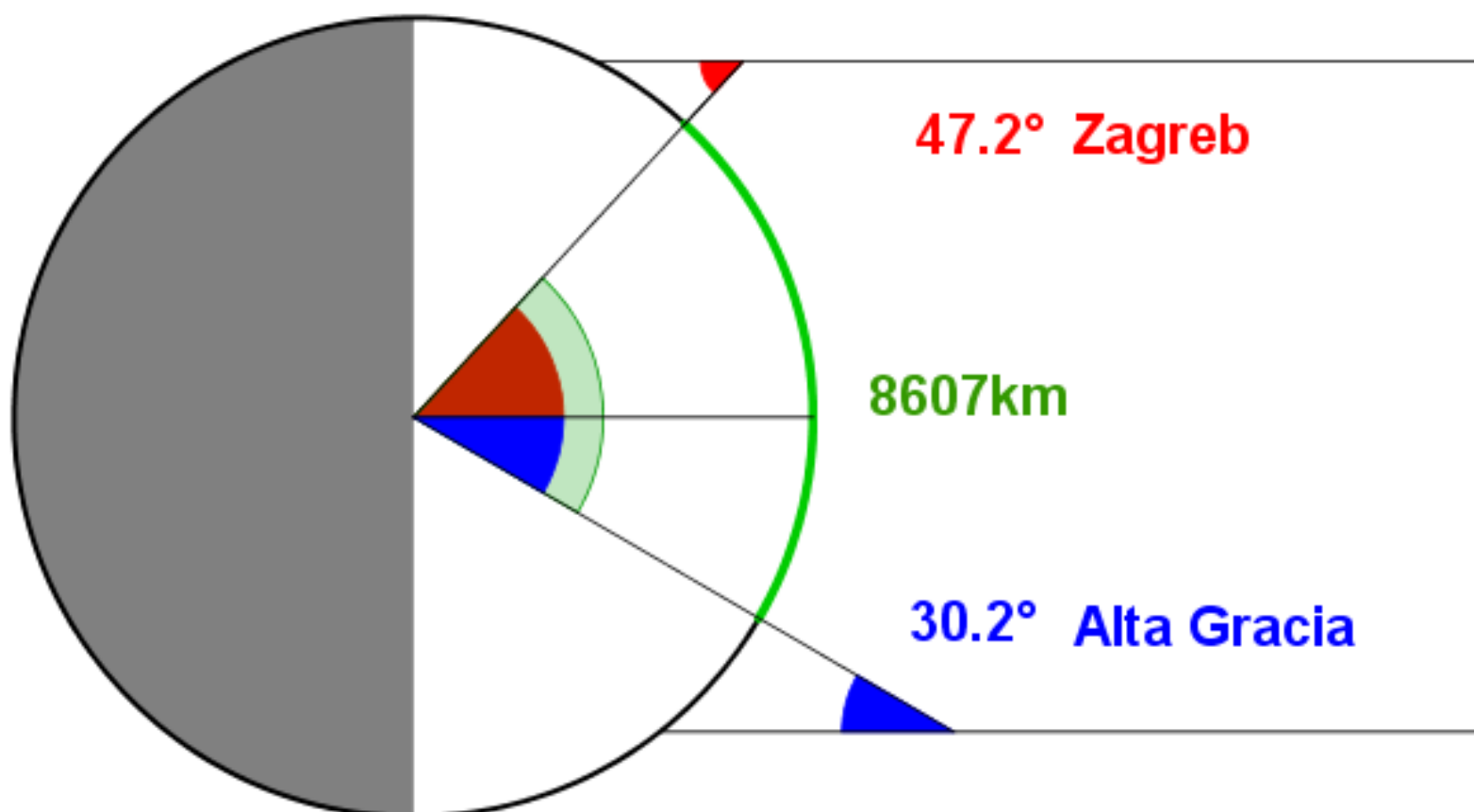


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Zagreb	Croatia	Elementary School Petar Zrinski	45.812	15.959

Date	Gnomon	Shadow	Angle
25 September 2018	100 cm	108 cm	47.2 °

25/09/2018 (Zagreb-Croatia) Latitude: 45.812°

25/09/2018 (Alta Gracia-Argentina) Latitude: -31.658°



$$\text{circumference} = \frac{360^\circ \times 8607\text{km}}{47.2^\circ + 30.2^\circ} = 40033 \text{ km}$$



