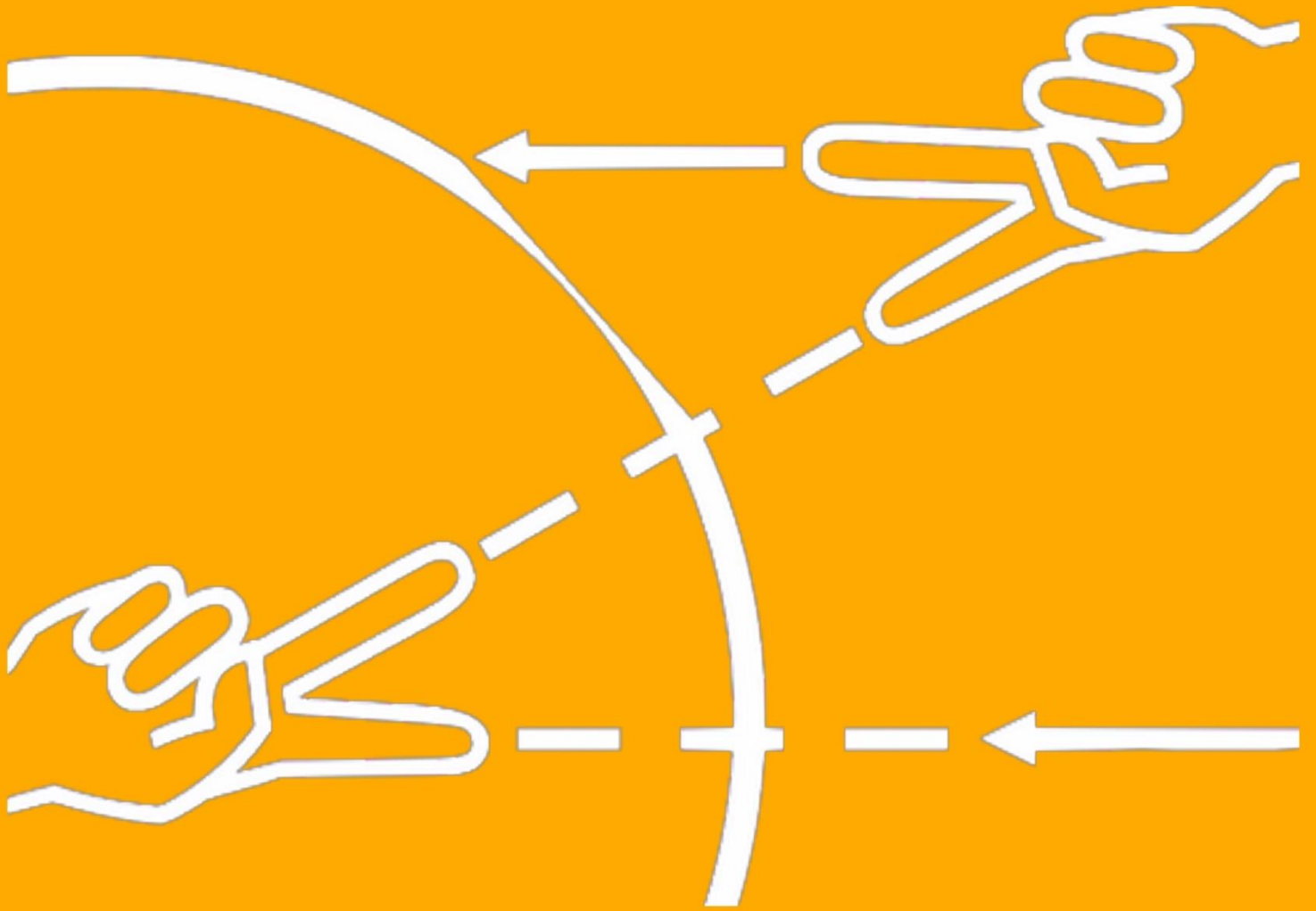


Eratosthenes



3 Continents

13 Countries

42 Schools

135 Measures

3 Continents

13 Countries

42 Schools

135 Measures

BRAZIL (3)

Piranguinho, Rio de Janeiro (2)

CROATIA (2)

Brštanovo, Donji Muć

FRANCE (1)

Lafrançaise

GREECE (5)

Aigio, Athens Ilion, Ioannina, Petroupoli, Piraeus

ITALY (2)

Marina di Carrara, Merlara

MALAYSIA (1)

Kuantan

ROMANIA (1)

Busteni

TUNISIA (1)


Sfax

Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Agurain	Spain	Aniturri BHI	42.851	-2.392
	Aigio	Greece	1st High School of Aigio	38.252	22.079
	Alta Gracia	Argentina	Fundación Caminos de Anisacate	-31.659	-64.417
	Andaraí	Brazil	Clube de Astronomia do Rio de Janeiro	-22.928	-43.258
	Andritsaina	Greece	Gymnasio Andritsainas	37.484	21.909
	Aspropyrgos	Greece	3rd High School of Aspropyrgos	38.061	23.601
	Athens	Greece	Experimental College Agion Anargyron	38.027	23.726
	Brazopolis	Brazil	Universidade Federal de Itajubá	-22.534	-45.582
	Brštanovo	Croatia	Osnovna škola kneza Branimira	43.658	16.415
	Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535
	Chantilly	France	Experimental JHS of Agion Anargyron	49.194	2.487
	Chivilcoy	Argentina	Parque Cielos del Sur	-34.911	-60.014
	Dholpur	India	Govt utkrist ups Saahanpur	26.680	77.976
	Dholpur	India	Govt girls SSS Tagawali	26.696	77.895
	Donji Muć	Croatia	oš kneza Branimira	43.694	16.462
	Guarne	Colombia	Grupo Astrofanáticos	6.274	-75.449
	Hyderabad	India	Space Adhyaan	17.385	78.487
	Ilion	Greece	3rd JuniorHigh School of Ilion	38.037	23.712
	Ilion	Greece	11th JuniorHigh School of Ilion	38.033	23.697
	Ioannina	Greece	Experimental College	39.666	20.845
	Itajubá	Brazil	Universidade Federal de Itajubá	-22.415	-45.449
	Kuantan	Malaysia	SMK St Thomas	3.817	103.333
	Lafrançaise	France	Collège Antonin Perbosc	44.127	1.237
	Mărgineni	Romania	Gh. Popescu School	44.533	24.554
	Nea Moudania	Greece	2nd primary school of New Moudania	40.243	23.281
	New Delhi	India	C V Raman Science Club	28.616	77.195
	Paris	France	Tour Eiffel	48.858	2.295
	Paysandú	Uruguay	Liceo N° 1 de Paysandú	-32.316	-58.093
	Pergamino	Argentina	Cesar Arrigo	-33.923	-60.573
	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
	Quy Nhon	Vietnam	Center for Science Exploration	13.719	109.213
	Rhodes	Greece	2o Experimental Primary School of Rhodes	36.450	28.371
	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
	Râmnicu Vâlcea	Romania	S.G. Nr4 Gradinita Dumbrava Minuata	45.093	24.358
	Saint-Just	France	Collège Louise Michel	49.502	2.425
	Tauragė	Lithuania	Tauragės Šaltinio progimnazija	55.256	22.300
	Úbeda	Spain	Colegio Salesiano Santo Domingo Savio	38.017	-3.367

Agurain, Spain

March 2018

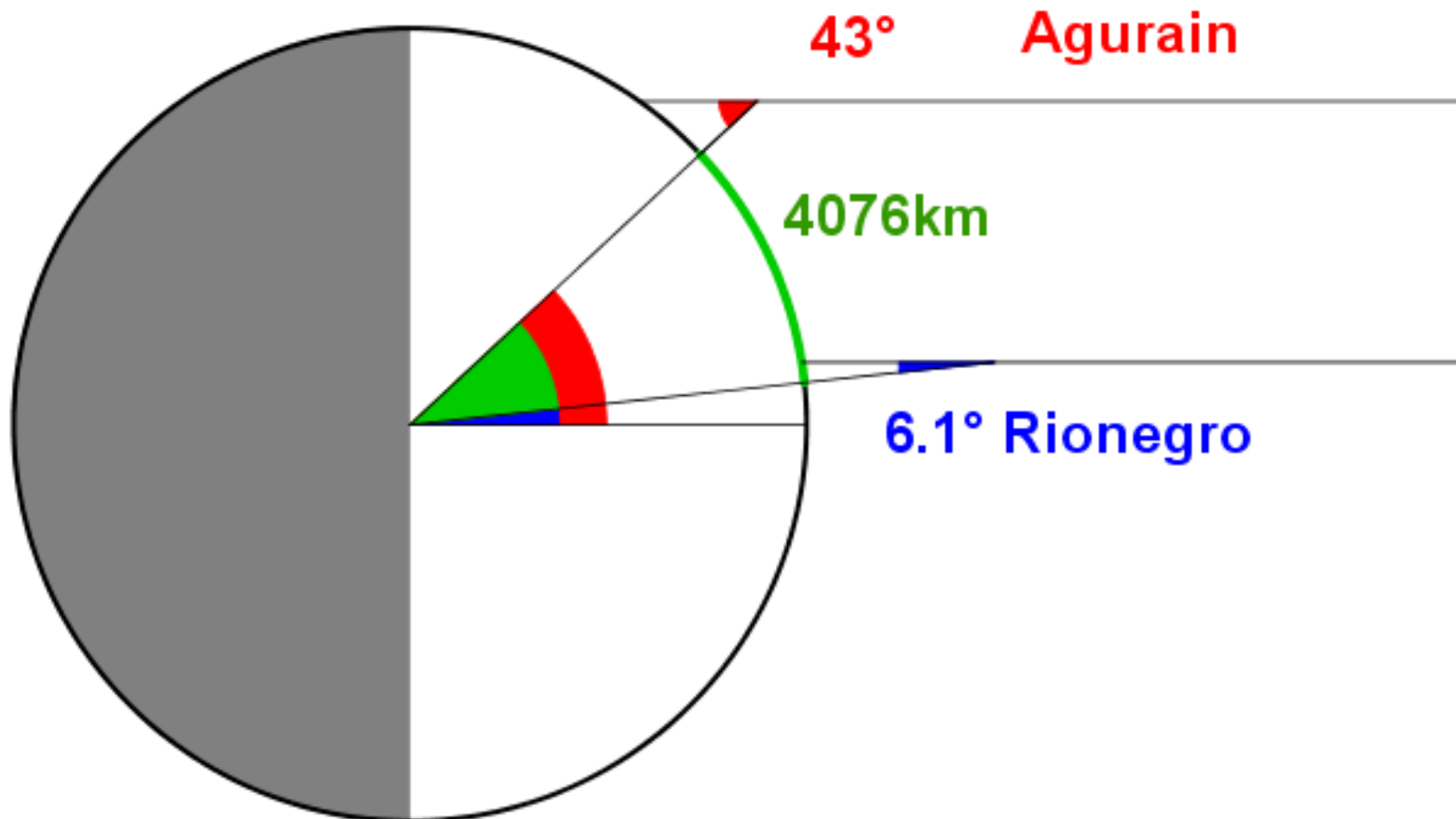


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Agurain	Spain	Aniturri BHI	42.851	-2.392

Date	Gnomon	Shadow	Angle
21 March 2018	120 cm	112 cm	43 °

21/03/2018 (Agurain-Spain) Latitude: 42.851°

21/03/2018 (Rionegro-Colombia) Latitude: 6.163°




$$\text{circumference} = \frac{360^\circ \times 4076\text{km}}{43^\circ - 6.1^\circ} = 39766 \text{ km}$$



Aigio, Greece

March 2018

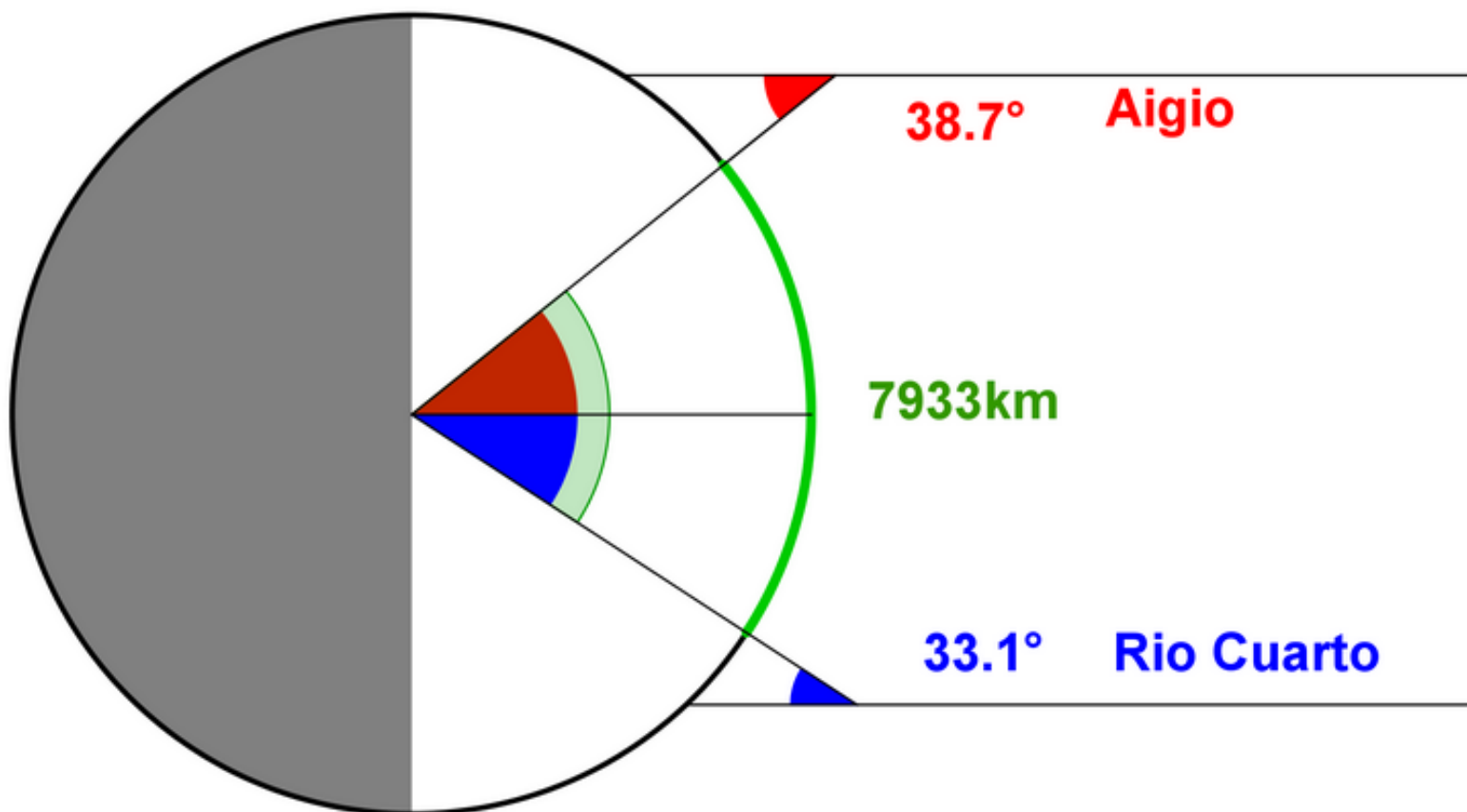


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Aigio	Greece	1st High School of Aigio	38.252	22.079

Date	Gnomon	Shadow	Angle
06 March 2018	30 cm	28.8 cm	43.8 °
20 March 2018	30 cm	24 cm	38.7 °

20/03/2018 (Aigio-Greece) Latitude: 38.252°

20/03/2018 (Rio Cuarto-Argentina) Latitude: -33.149°



$$\text{circumference} = \frac{360^\circ \times 7933\text{km}}{38.7^\circ + 33.1^\circ} = 39775 \text{ km}$$



Alta Gracia, Argentina

March 2018

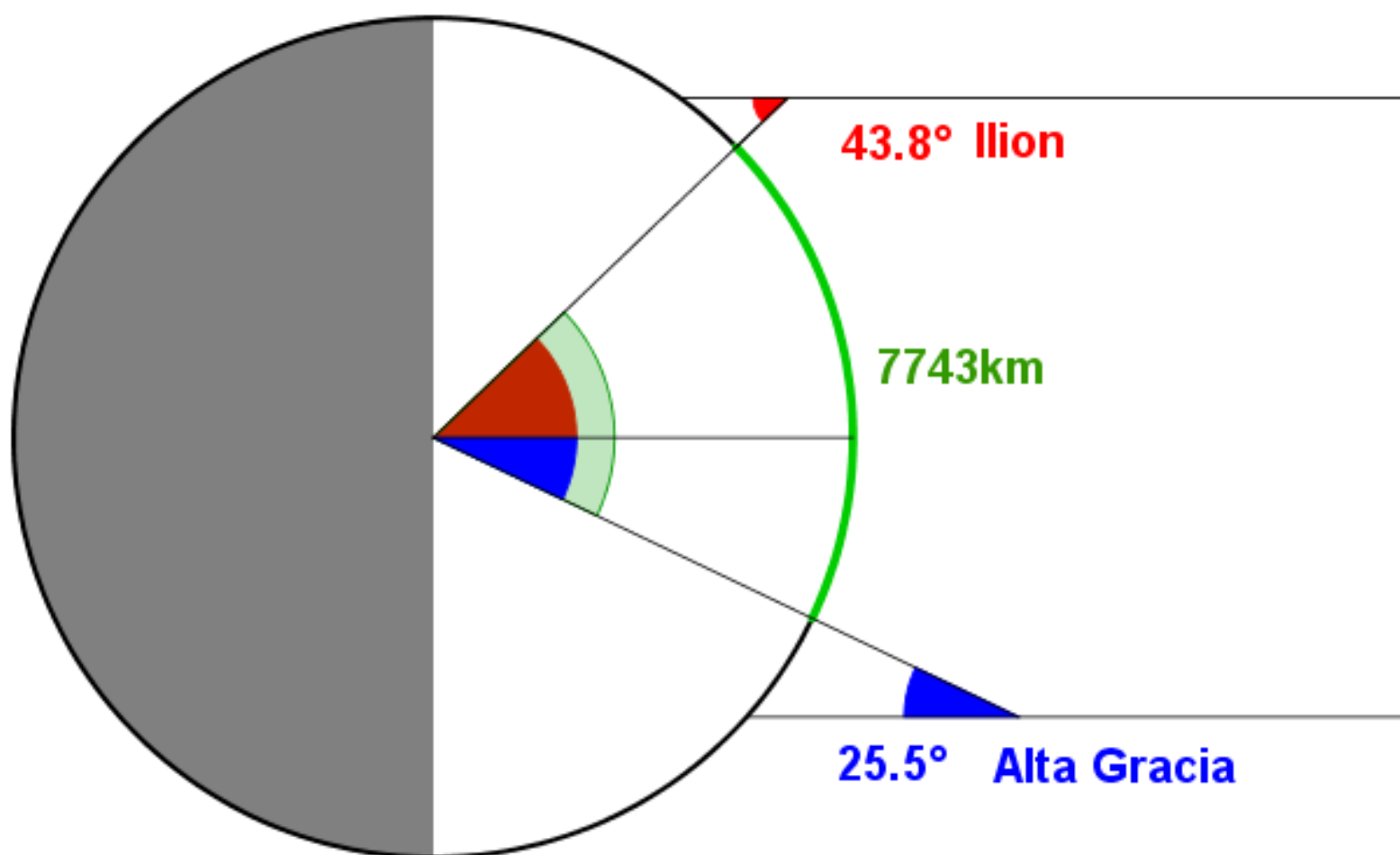


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Alta Gracia	Argentina	Fundación Caminos de Anisacate	-31.659	-64.417

Date	Gnomon	Shadow	Angle
06 March 2018	65.0 cm	-31.0 cm	-25.5 °
07 March 2018	65 cm	-31.6 cm	-25.9 °
08 March 2018	65 cm	-32.2 cm	-26.4 °
09 March 2018	65.0 cm	-32.8 cm	-26.8 °

06/03/2018 (Ilion-Greece) Latitude: 38.037°

06/03/2018 (Alta Gracia-Argentina) Latitude: -31.659°




$$\text{circumference} = \frac{360^\circ \times 7743\text{km}}{43.8^\circ + 25.5^\circ} = 40223 \text{ km}$$



Andarai, Brazil

March 2018

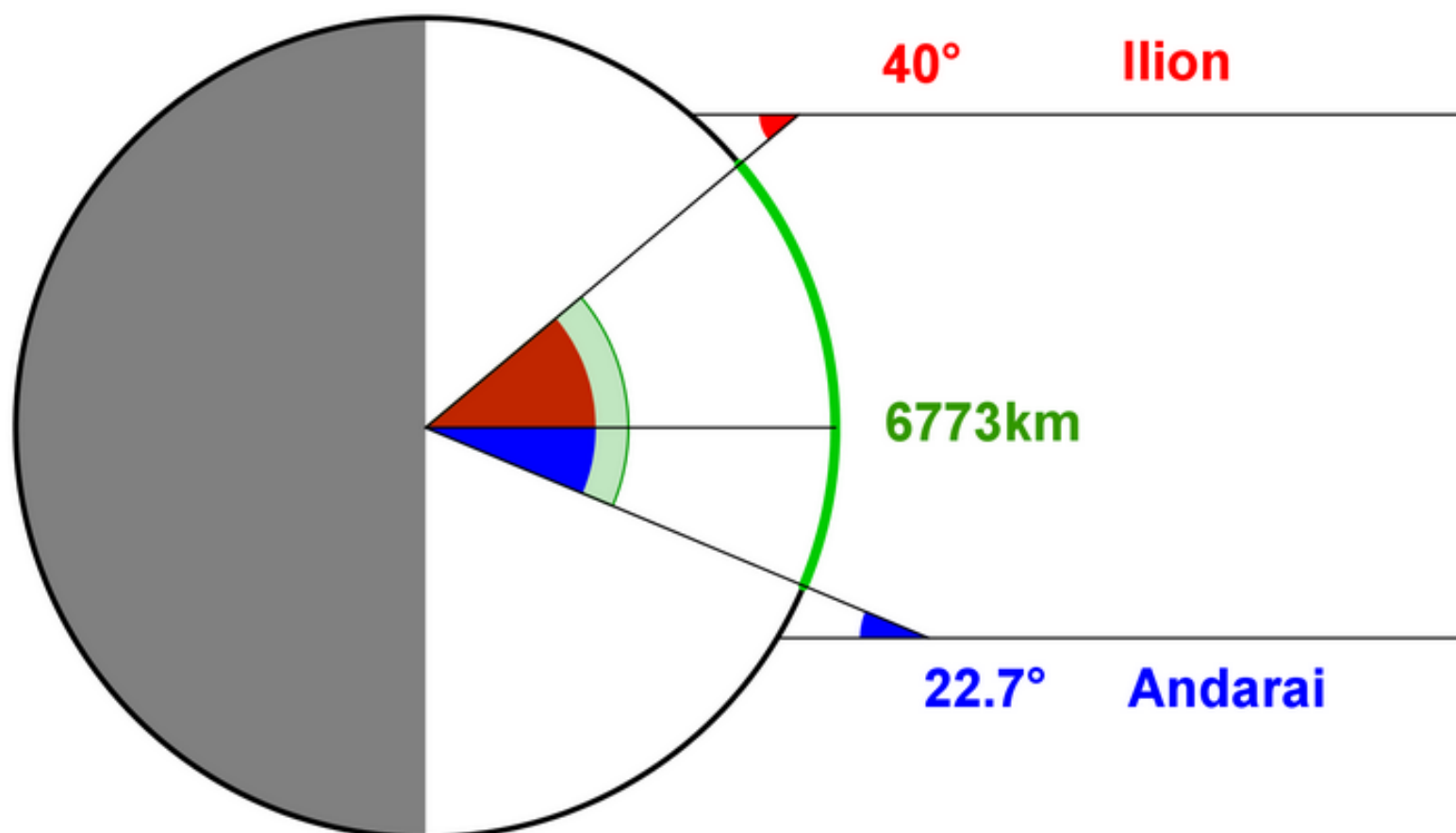


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Andaraí	Brazil	Clube de Astronomia do Rio de Janeiro	-22.928	-43.258

Date	Gnomon	Shadow	Angle
23 March 2018	17.7 cm	-7.4 cm	-22.7 °

23/03/2018 (Ilion-Greece) Latitude: 38.037°

23/03/2018 (Andarai-Brazil) Latitude: -22.927°



$$\text{circumference} = \frac{360^\circ \times 6773\text{km}}{40^\circ + 22.7^\circ} = 38888 \text{ km}$$



Andritsaina, Greece

March 2018

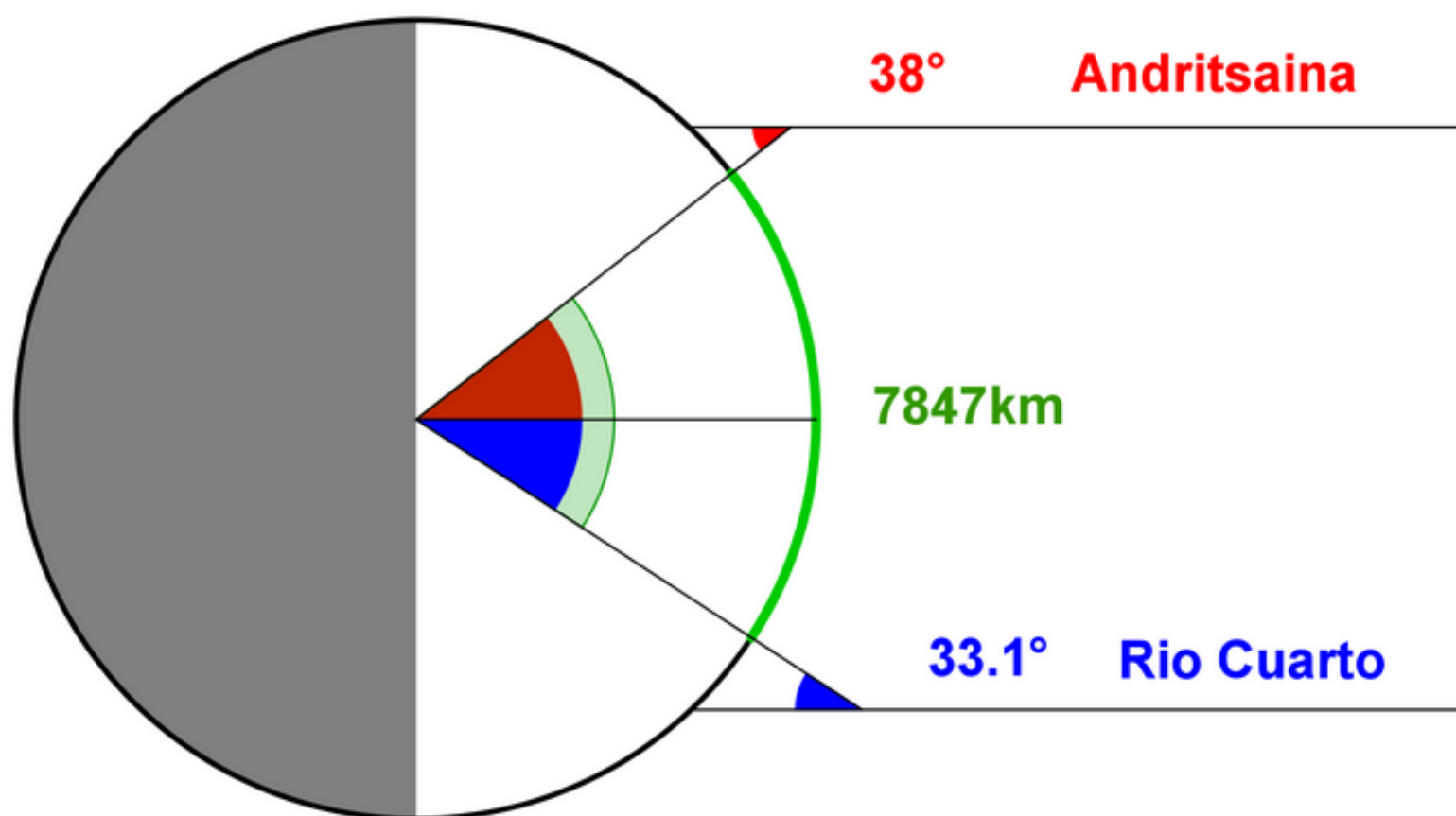


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Andritsaina	Greece	Gymnasio Andritsainas	37.484	21.909

Date	Gnomon	Shadow	Angle
20 March 2018	100 cm	78 cm	38 °

20/03/2018 (Andritsaina-Greece) Latitude: 37.484°

20/03/2018 (Rio Cuarto-Argentina) Latitude: -33.149°



$$\text{circumference} = \frac{360^\circ \times 7847\text{km}}{38^\circ + 33.1^\circ} = 39732 \text{ km}$$



Aspropyrgos, Greece

March 2018

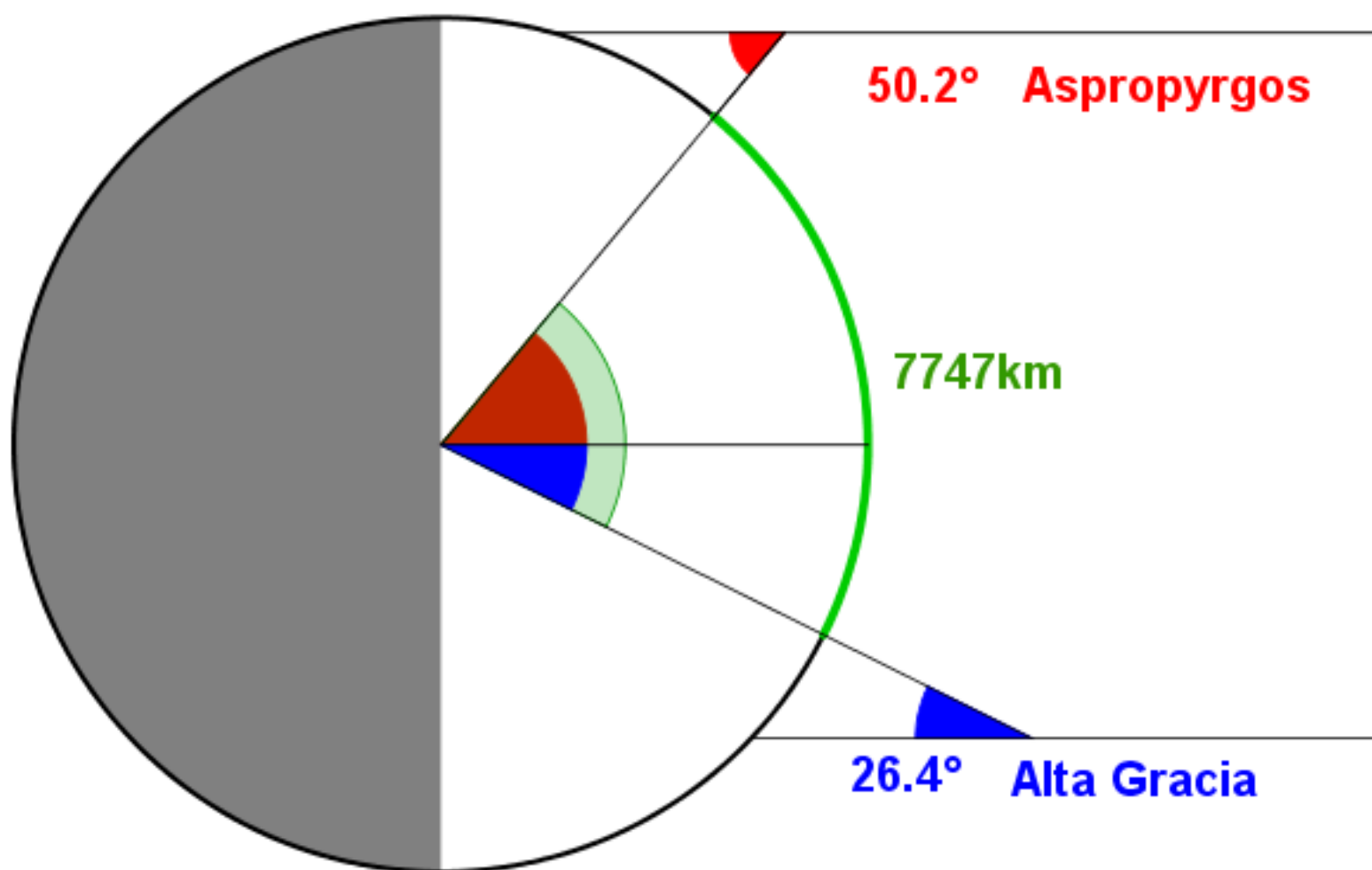


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Aspropyrgos	Greece	3rd High School of Aspropyrgos	38.061	23.601

Date	Gnomon	Shadow	Angle
08 March 2018	100.0 cm	120.0 cm	50.2 °

08/03/2018 (Aspropyrgos-Greece) Latitude: 38.068°

08/03/2018 (Alta Gracia-Argentina) Latitude: -31.659°



$$\text{circumference} = \frac{360^\circ \times 7747\text{km}}{50.2^\circ + 26.4^\circ} = 36409 \text{ km}$$



Brazopolis, Brazil

March 2018

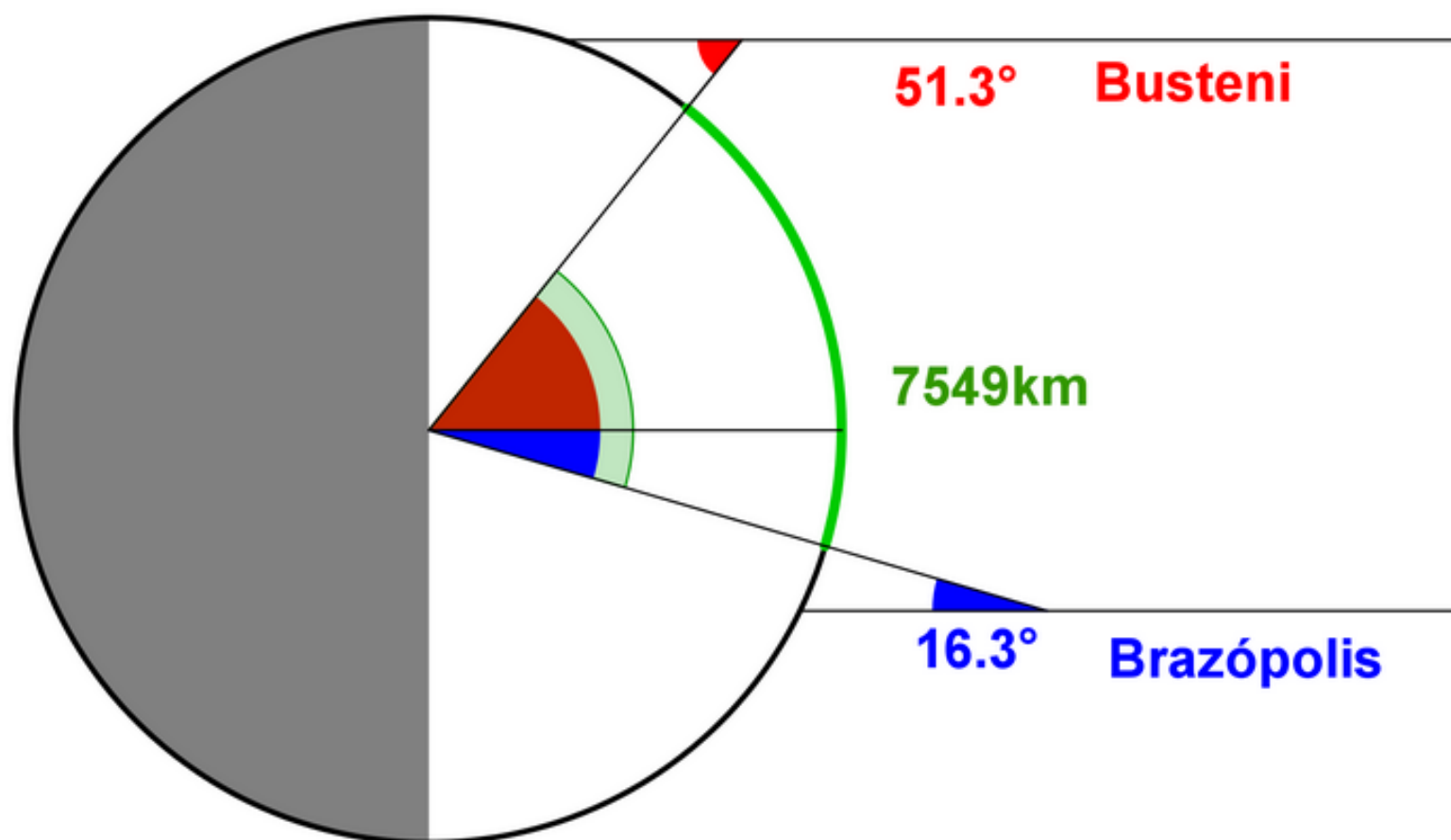


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Brazopolis	Brazil	Universidade Federal de Itajubá	-22.534	-45.582

Date	Gnomon	Shadow	Angle
05 March 2018	49 cm	-14.3 cm	-16.3 °

05/03/2018 (Busteni-Romania) Latitude: 45.416°

05/03/2018 (Brazópolis-Brazil) Latitude: -22.534°



$$\text{circumference} = \frac{360^\circ \times 7549\text{km}}{51.3^\circ + 16.3^\circ} = 40202 \text{ km}$$



Mar, 05 - 2018

Brštanovo, Croatia

March 2018

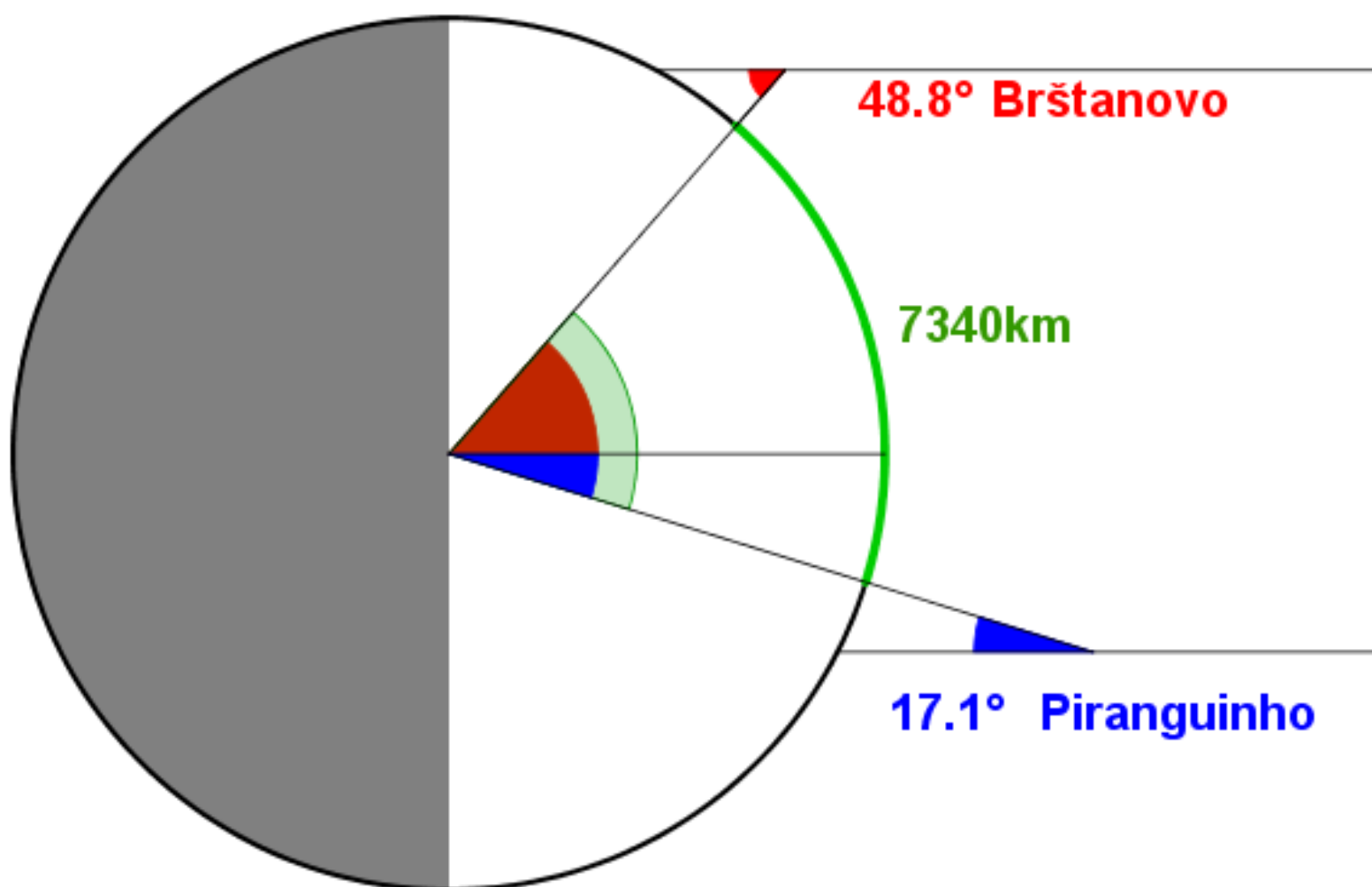


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Brštanovo	Croatia	Osnovna škola kneza Branimira	43.658	16.415

Date	Gnomon	Shadow	Angle
07 March 2018	100 cm	114.3 cm	48.8 °
08 March 2018	100.0 cm	112.8 cm	48.4 °
28 March 2018	100 cm	85.6 cm	40.6 °

07/03/2018 (Brštanovo-Croatia) Latitude: 43.658°

07/03/2018 (Piranguinho-Brazil) Latitude: -22.411°




$$\text{circumference} = \frac{360^\circ \times 7340\text{km}}{48.8^\circ + 17.1^\circ} = 40097 \text{ km}$$



Busteni, Romania

March 2018

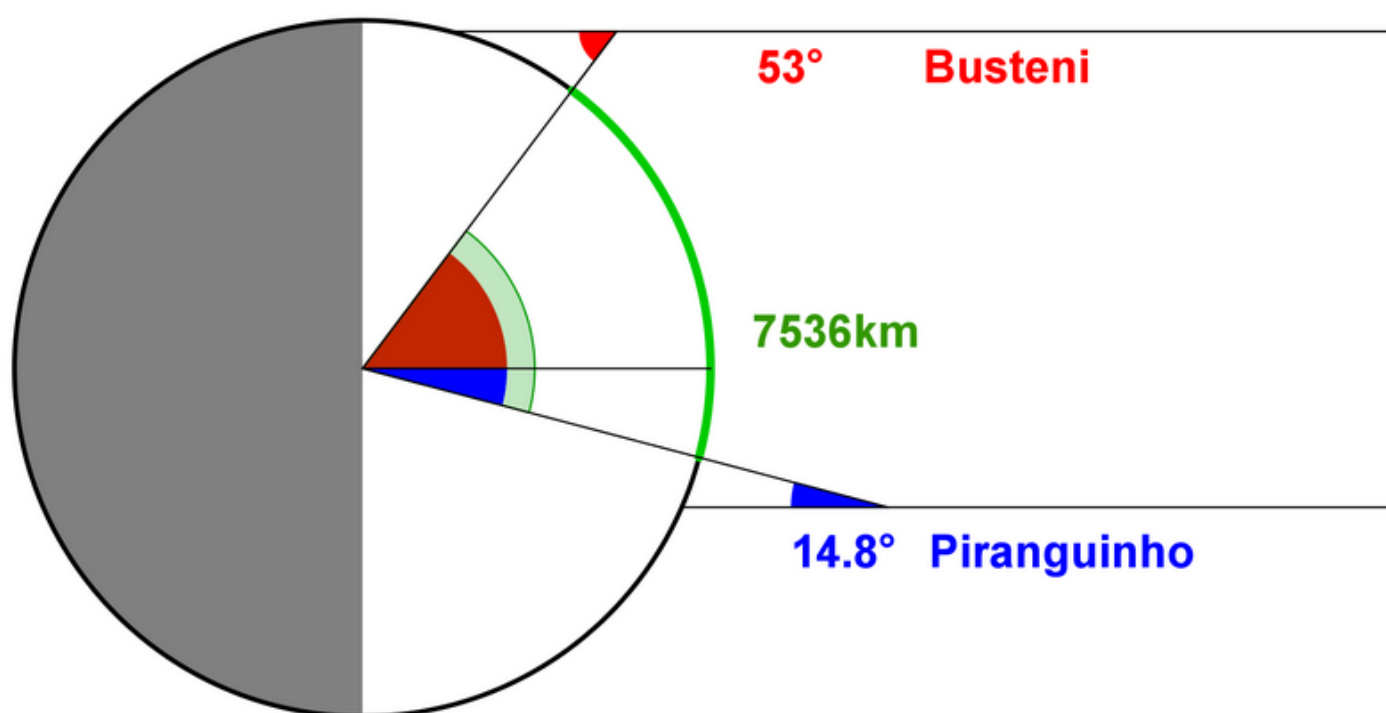


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535

Date	Gnomon	Shadow	Angle
01 March 2018	54.2 cm	72 cm	53 °
02 March 2018	12.2 cm	16 cm	52.7 °
05 March 2018	52 cm	65 cm	51.3 °
07 March 2018	10.6 cm	13.0 cm	50.8 °
08 March 2018	58 cm	70 cm	50.4 °
09 March 2018	64 cm	71 cm	48 °
12 March 2018	11 cm	12.5 cm	48.7 °
14 March 2018	72.2 cm	80 cm	47.9 °
15 March 2018	15 cm	16.3 cm	47.4 °
17 March 2018	32.0 cm	34.0 cm	46.7 °
21 March 2018	31.9 cm	32 cm	45.1 °
27 March 2018	29.3 cm	27 cm	42.7 °
28 March 2018	30.8 cm	28 cm	42.3 °
29 March 2018	41.2 cm	37 cm	41.9 °
30 March 2018	23 cm	20.3 cm	41.4 °

01/03/2018 (Busteni-Romania) Latitude: 45.416°

01/03/2018 (Piranguinho-Brazil) Latitude: -22.411°



$$\text{circumference} = \frac{360^\circ \times 7536\text{km}}{53^\circ + 14.8^\circ} = 40014 \text{ km}$$



Chantilly, France

March 2018

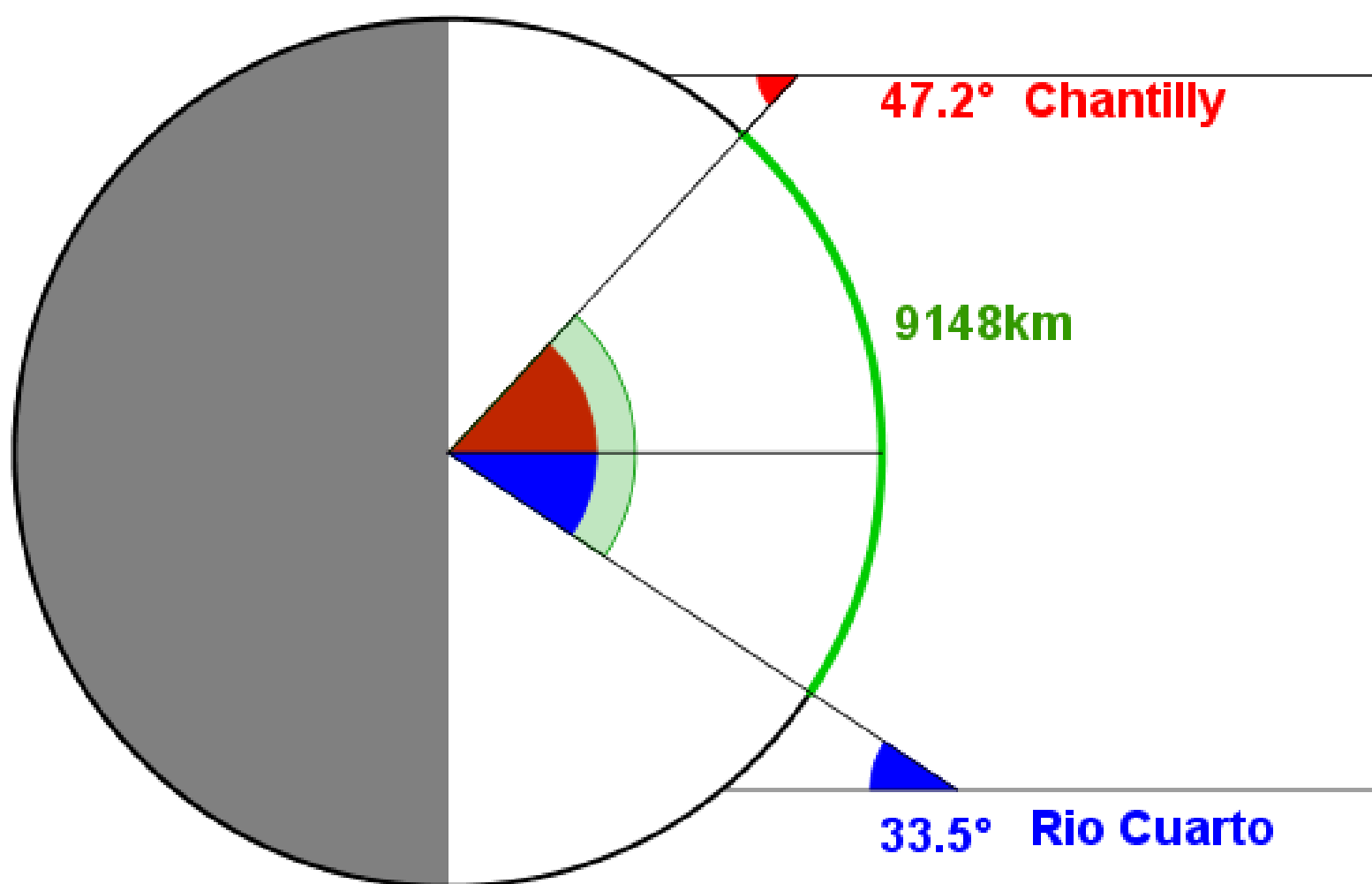


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Chantilly	France	Experimental JHS of Agion Anargyron	49.194	2.487

Date	Gnomon	Shadow	Angle
29 March 2018	104.5 cm	113 cm	47.2 °

29/03/2018 (Chantilly-France) Latitude: 49.194°

29/03/2018 (Rio Cuarto-Argentina) Latitude: -33.149°




$$\text{circumference} = \frac{360^\circ \times 9148\text{km}}{47.2^\circ + 33.5^\circ} = 40809 \text{ km}$$



Chivilcoy, Argentina

March 2018

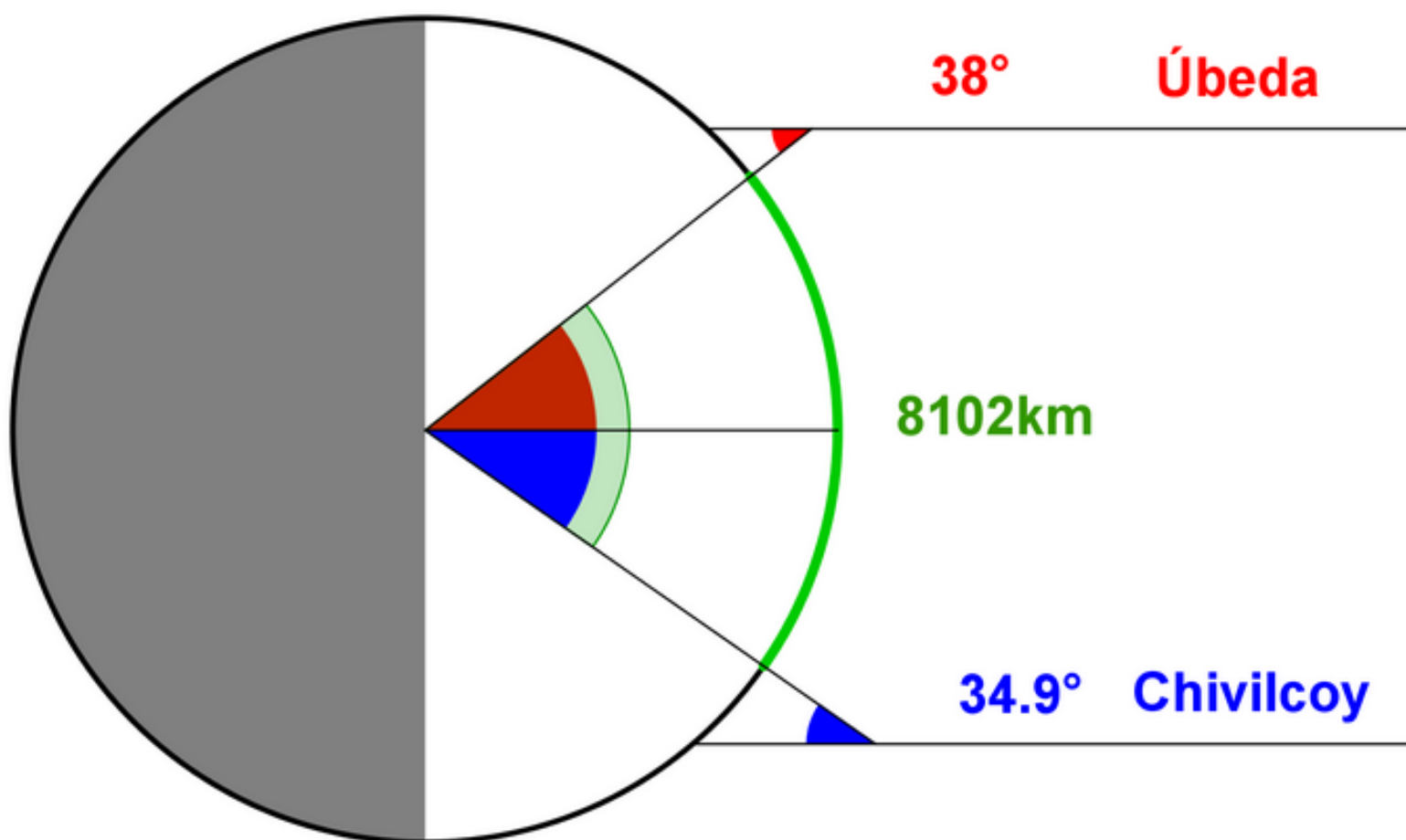


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Chivilcoy	Argentina	Parque Cielos del Sur	-34.911	-60.014

Date	Gnomon	Shadow	Angle
20 March 2018	410 cm	-286 cm	-34.9 °

20/03/2018 (Úbeda-Spain) Latitude: 38.017°

20/03/2018 (Chivilcoy-Argentina) Latitude: -34.911°



$$\text{circumference} = \frac{360^\circ \times 8102\text{km}}{38^\circ + 34.9^\circ} = 40010 \text{ km}$$



Dholpur Saahanpur, India

March 2018

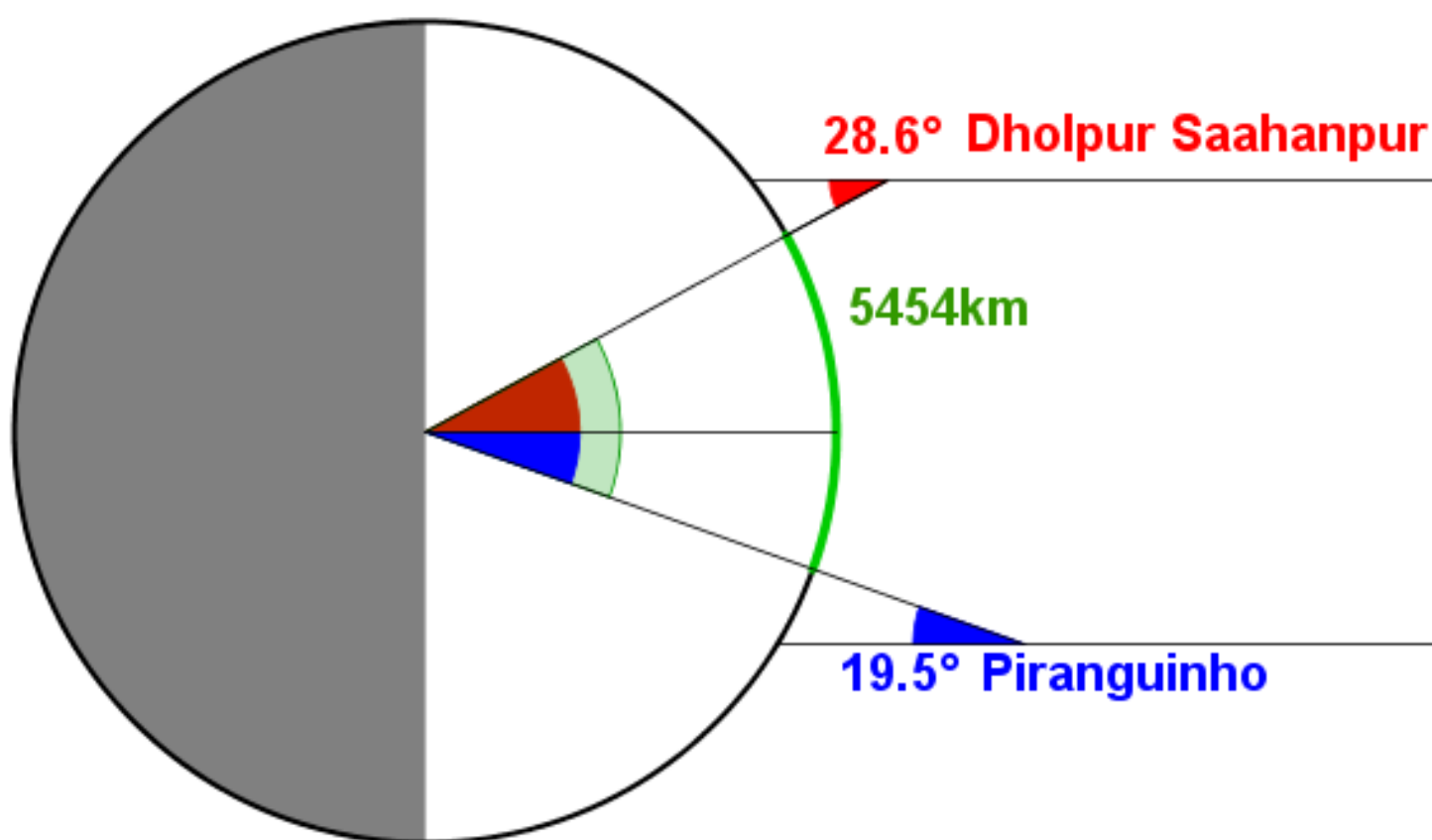


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Dholpur	India	Govt utkrist ups Saahanpur	26.680	77.976

Date	Gnomon	Shadow	Angle
13 March 2018	68 cm	37 cm	28.6 °

13/03/2018 (Dholpur Saahanpur-India) Latitude: 26.68°

13/03/2018 (Piranguinho-Brazil) Latitude: -22.411°




$$\text{circumference} = \frac{360^\circ \times 5454\text{km}}{28.6^\circ + 19.5^\circ} = 40820 \text{ km}$$



Dholpur Tagawali, India

March 2018

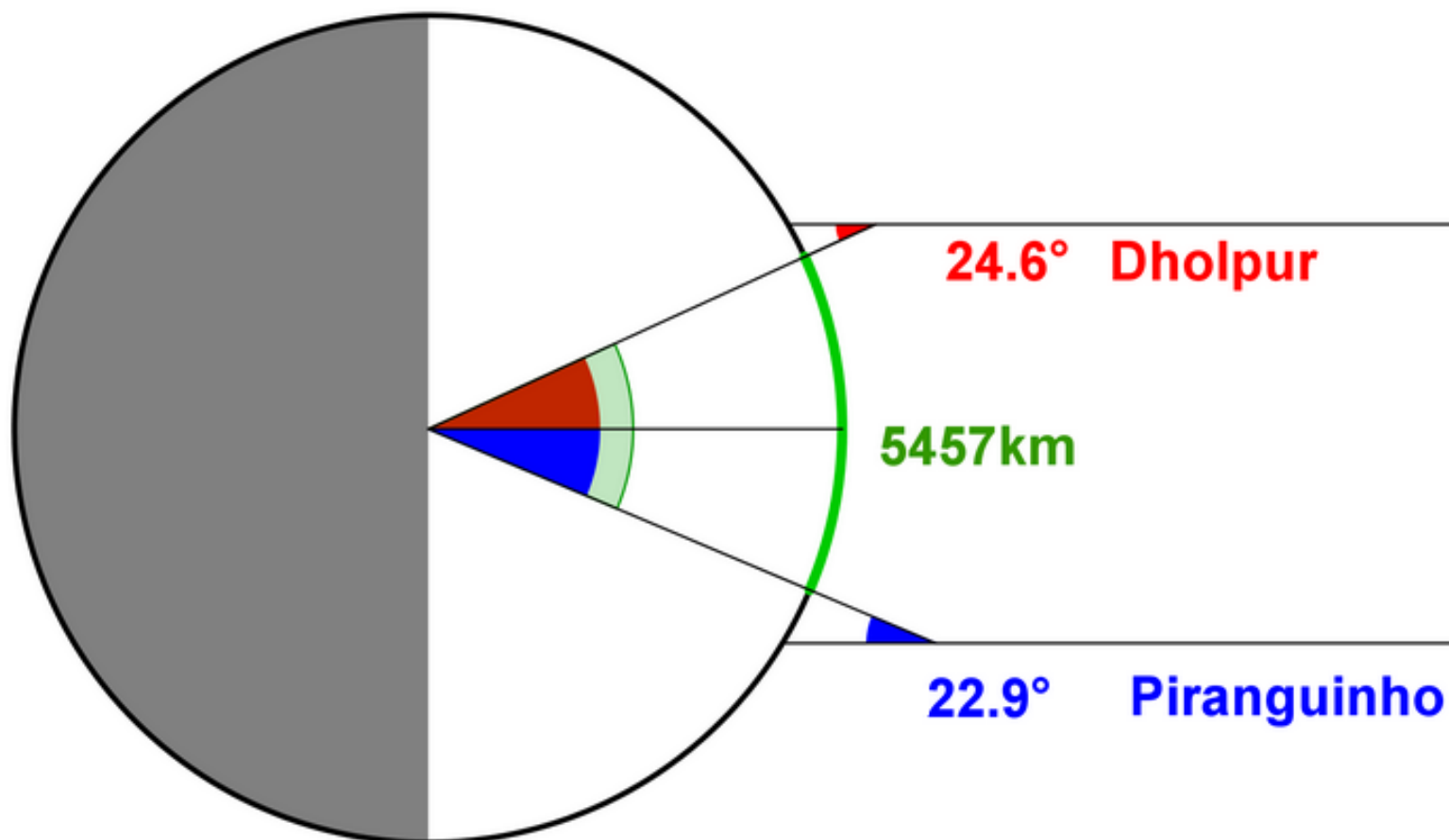


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Dholpur	India	Govt girls SSS Tagawali	26.696	77.895

Date	Gnomon	Shadow	Angle
22 March 2018	240 cm	110 cm	24.6 °

22/03/2018 (Dholpur-India) Latitude: 26.708°

22/03/2018 (Piranguinho-Brazil) Latitude: -22.411°



$$\text{circumference} = \frac{360^\circ \times 5457\text{km}}{24.6^\circ + 22.9^\circ} = 41358 \text{ km}$$

9

राजकीय उच्च माध्यमिक विद्यालय
तगावली, धौलपुर

आप

करता है।




Affiliated to Vigyan Prasar Network of Science Clubs
Club Name : Tegawali Vigyan Club
Club Unique Authorization Number : VP-RJ0060



Donji Muć, Croatia

March 2018

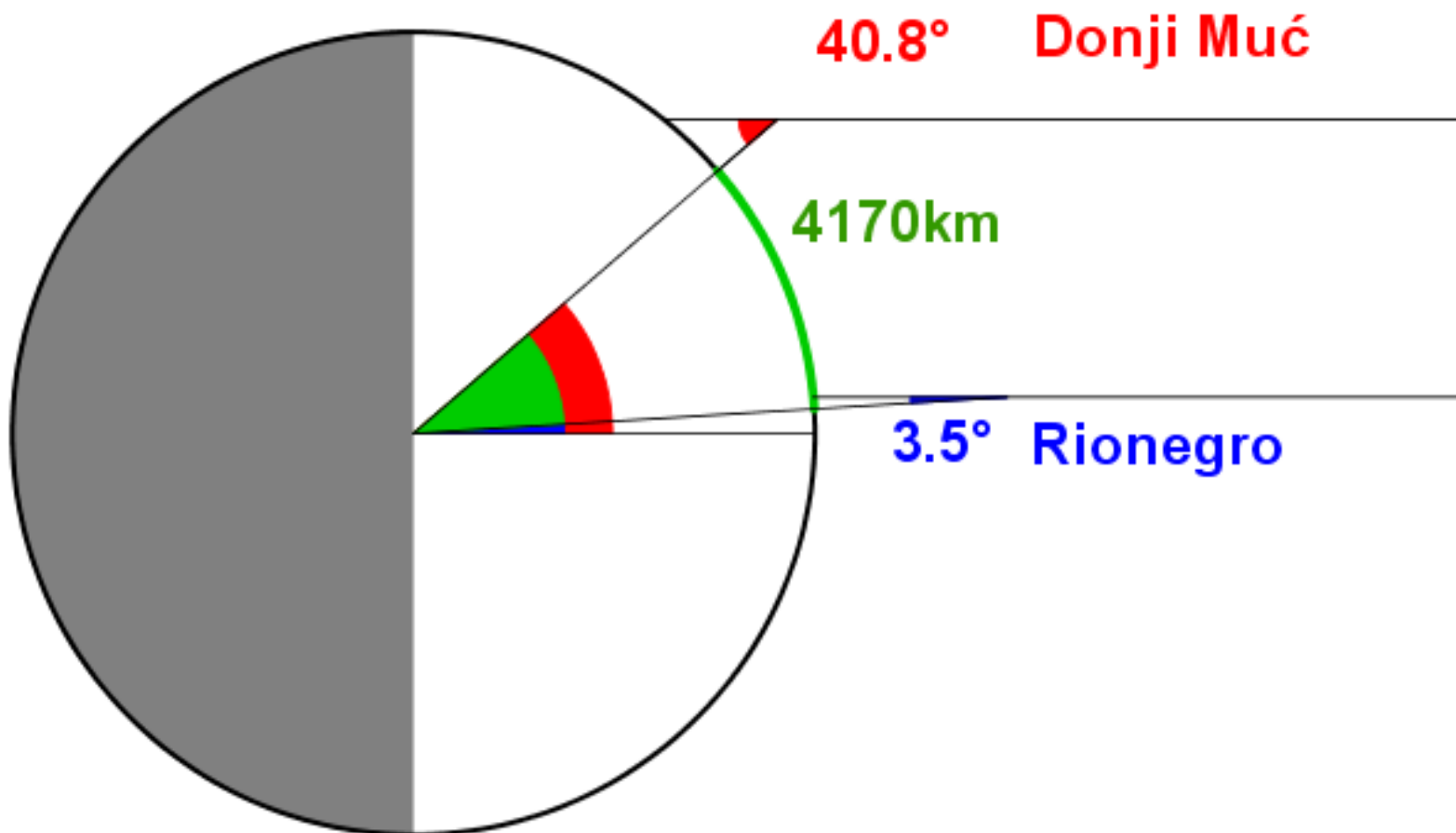


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Donji Muć	Croatia	oš kneza Branimira	43.694	16.462

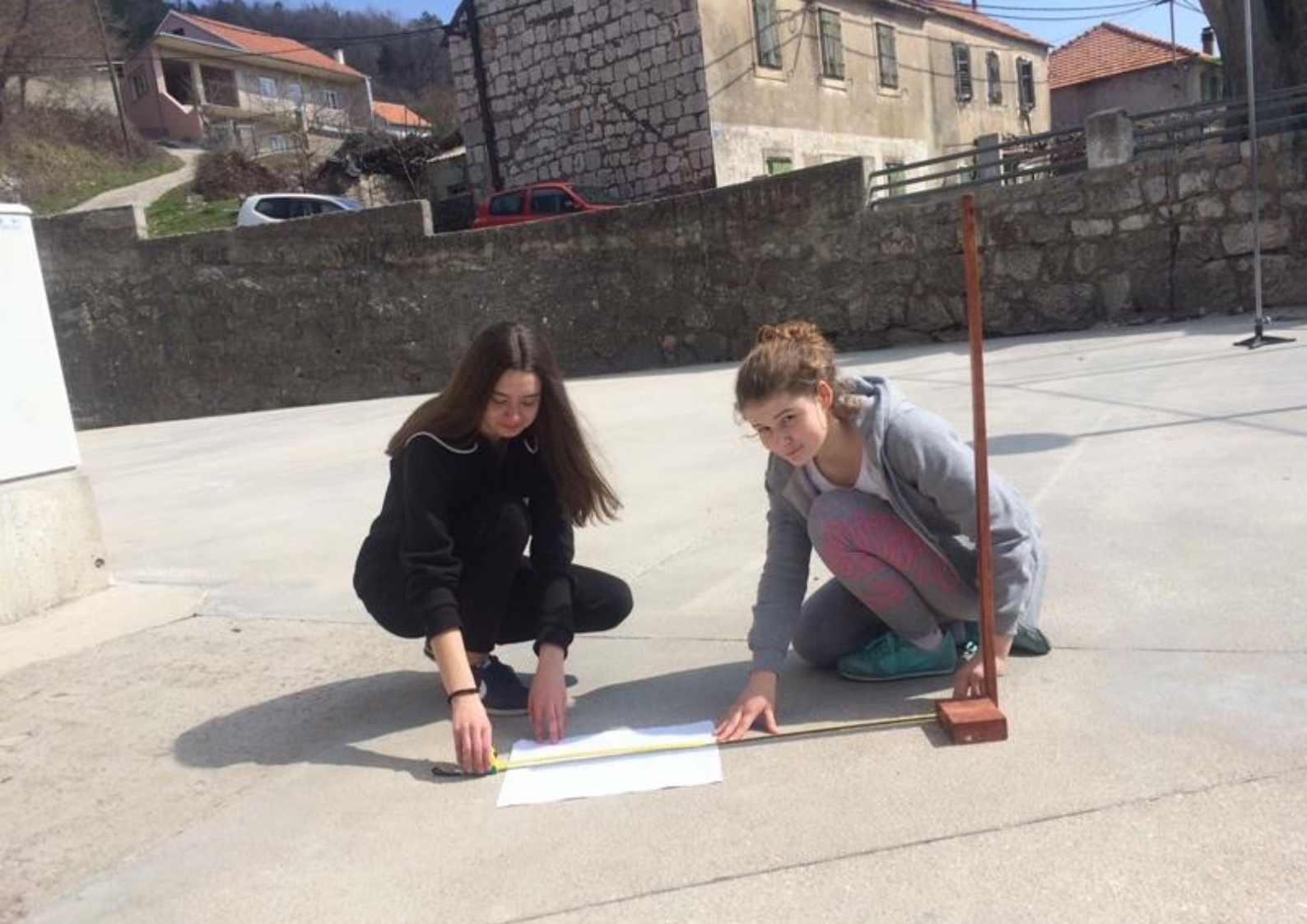
Date	Gnomon	Shadow	Angle
09 March 2018	100 cm	111.2 cm	48 °
27 March 2018	100 cm	86.3 cm	40.8 °

27/03/2018 (Donji Muć-Croatia) Latitude: 43.694°

27/03/2018 (Rionegro-Colombia) Latitude: 6.163°



$$\text{circumference} = \frac{360^\circ \times 4170\text{km}}{40.8^\circ - 3.5^\circ} = 40247 \text{ km}$$



Guarne, Colombia

March 2018

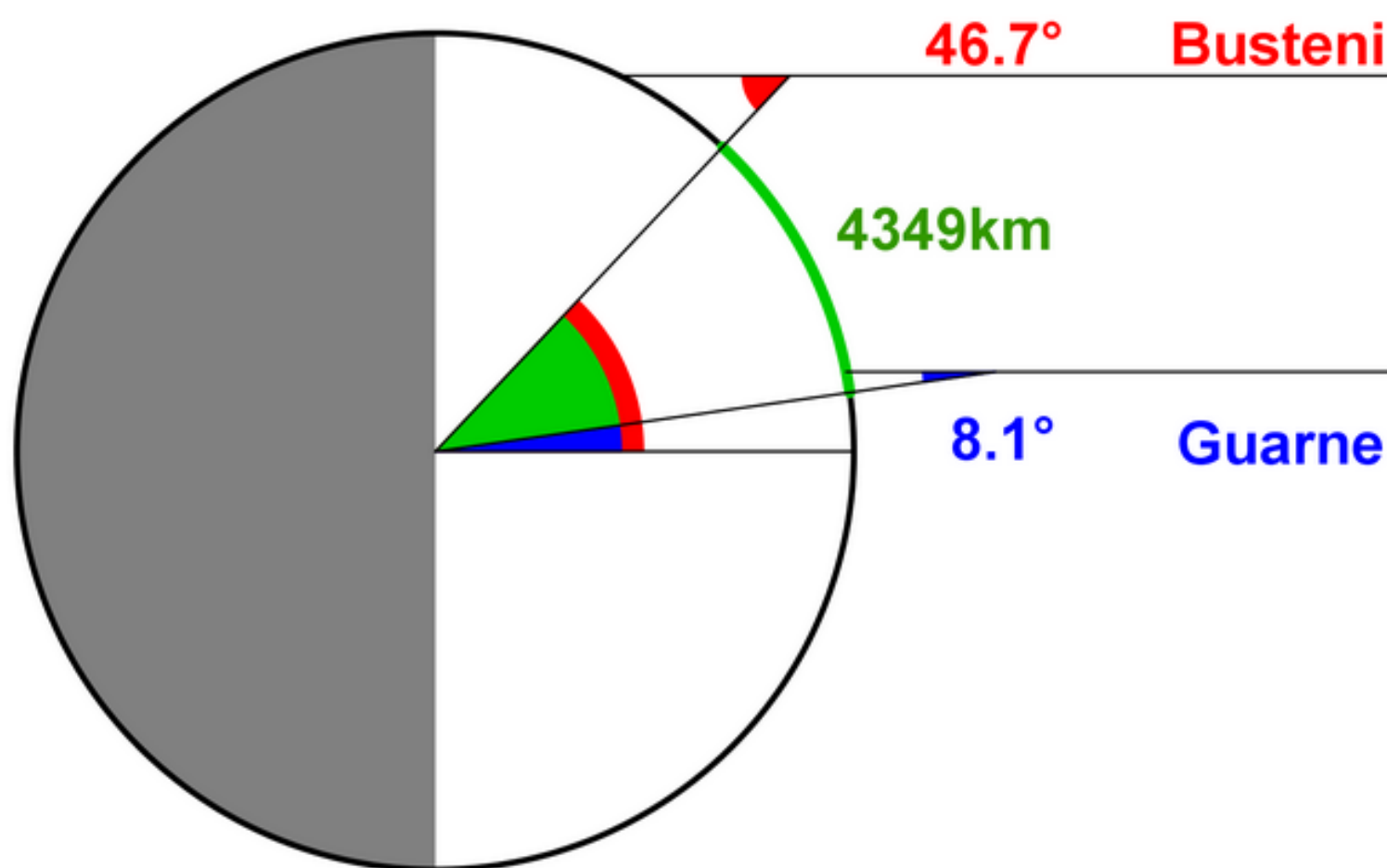


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Guarne	Colombia	Grupo Astrofanáticos	6.274	-75.449

Date	Gnomon	Shadow	Angle
11 March 2018	97.7 cm	6.8 cm	4 °
17 March 2018	93.3 cm	13.3 cm	8.1 °
19 March 2018	93.3 cm	14.2 cm	8.7 °

17/03/2018 (Busteni-Romania) Latitude: 45.416°

17/03/2018 (Guarne-Colombia) Latitude: 6.274°




$$\text{circumference} = \frac{360^\circ \times 4349\text{km}}{46.7^\circ - 8.1^\circ} = 40561 \text{ km}$$



Hyderabad, India

March 2018

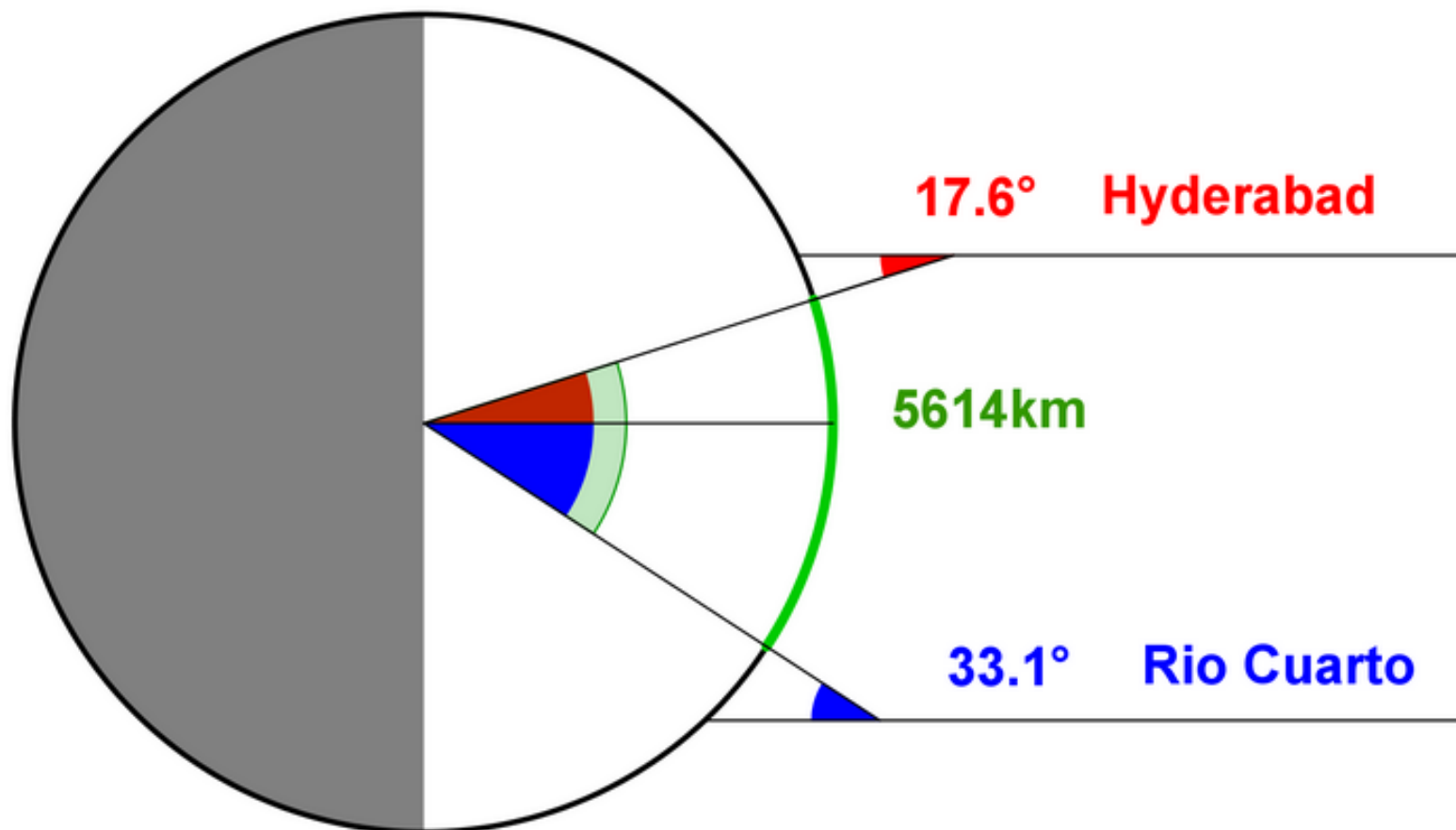


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Hyderabad	India	Space Adhyaan	17.385	78.487

Date	Gnomon	Shadow	Angle
20 March 2018	20.5 cm	6.5 cm	17.6 °

20/03/2018 (Hyderabad-India) Latitude: 17.385°

20/03/2018 (Rio Cuarto-Argentina) Latitude: -33.149°



$$\text{circumference} = \frac{360^\circ \times 5614\text{km}}{17.6^\circ + 33.1^\circ} = 39863 \text{ km}$$



Ilion 11th, Greece

March 2018

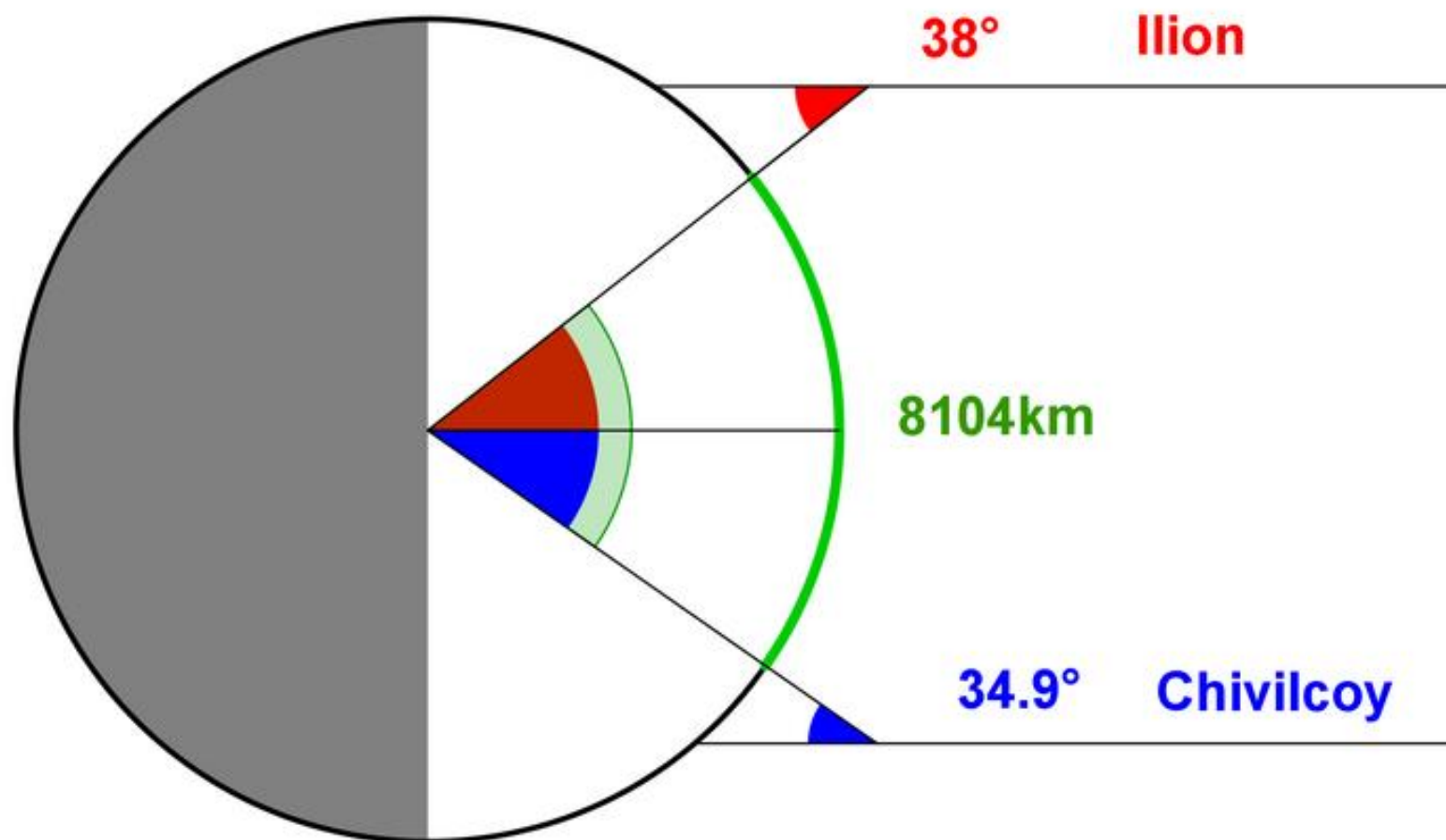


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Ilion	Greece	11th JuniorHigh School of Ilion	38.033	23.697

Date	Gnomon	Shadow	Angle
08 March 2018	30.4 cm	28.3 cm	43 °
20 March 2018	39 cm	30.5 cm	38 °
22 March 2018	30.4 cm	23.3 cm	37.5 °
27 March 2018	30.4 cm	21.8 cm	35.6 °
29 March 2018	30.4 cm	20.6 cm	34.1 °

20/03/2018 (Ilion-Greece) Latitude: 38.033°

20/03/2018 (Chivilcoy-Argentina) Latitude: -34.911°



$$\text{circumference} = \frac{360^\circ \times 8104\text{km}}{38^\circ + 34.9^\circ} = 40020 \text{ km}$$



Ioannina, Greece

March 2018

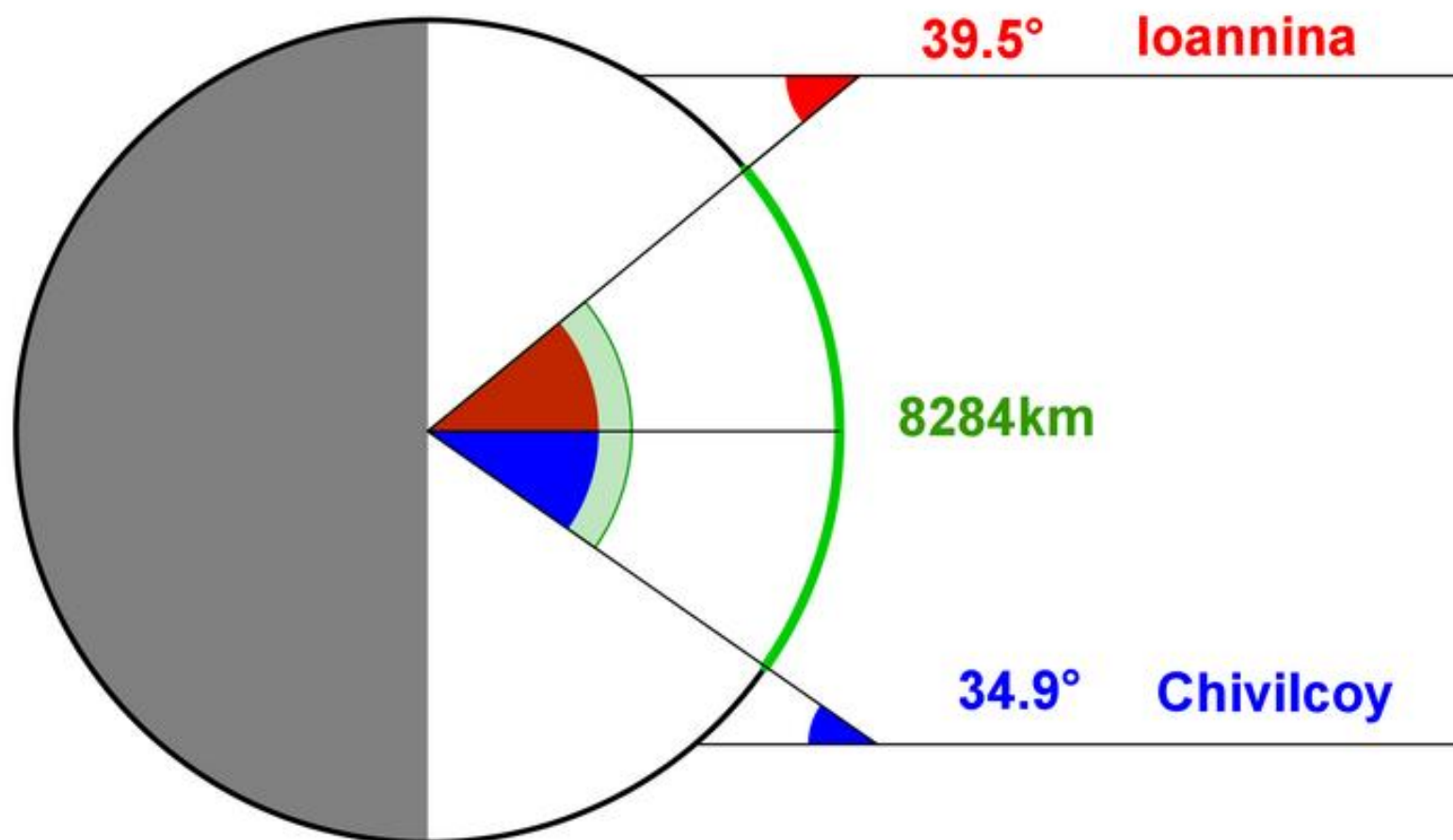


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Ioannina	Greece	Experimental College	39.666	20.845

Date	Gnomon	Shadow	Angle
15 March 2018	100 cm	89.5 cm	41.8 °
20 March 2018	100 cm	82.4 cm	39.5 °

20/03/2018 (Ioannina-Greece) Latitude: 39.655°

20/03/2018 (Chivilcoy-Argentina) Latitude: -34.911°



$$\text{circumference} = \frac{360^\circ \times 8284\text{km}}{39.5^\circ + 34.9^\circ} = 40084 \text{ km}$$



Itajubá, Brazil

March 2018

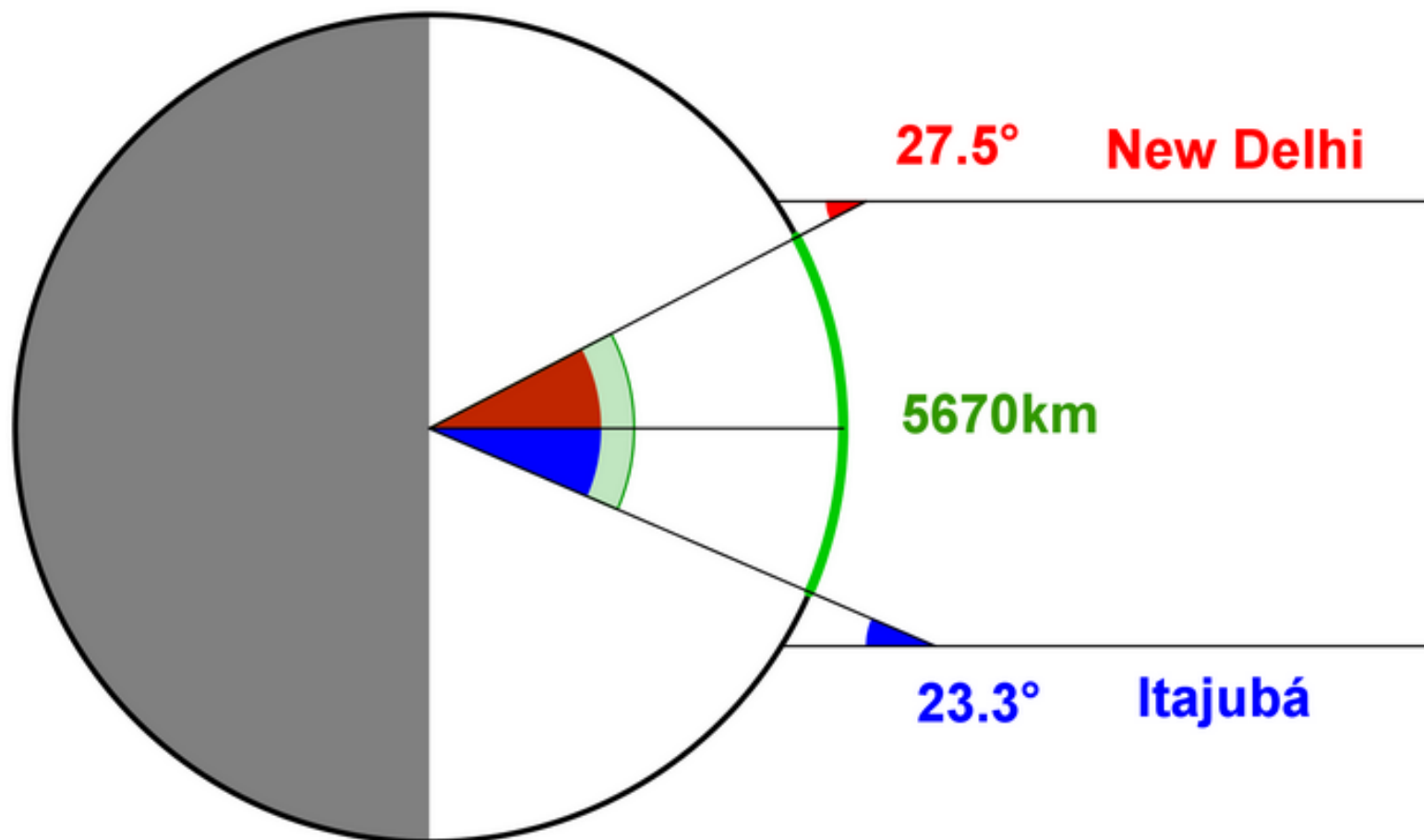


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Itajubá	Brazil	Universidade Federal de Itajubá	-22.415	-45.449

Date	Gnomon	Shadow	Angle
23 March 2018	47.3 cm	-20.4 cm	-23.3 °

23/03/2018 (New Delhi-India) Latitude: 28.616°

23/03/2018 (Itajubá-Brazil) Latitude: -22.415°



$$\text{circumference} = \frac{360^\circ \times 5670\text{km}}{27.5^\circ + 23.3^\circ} = 40181 \text{ km}$$



23.03.2018




23.03.2018

Kuantan, Malaysia

March 2018

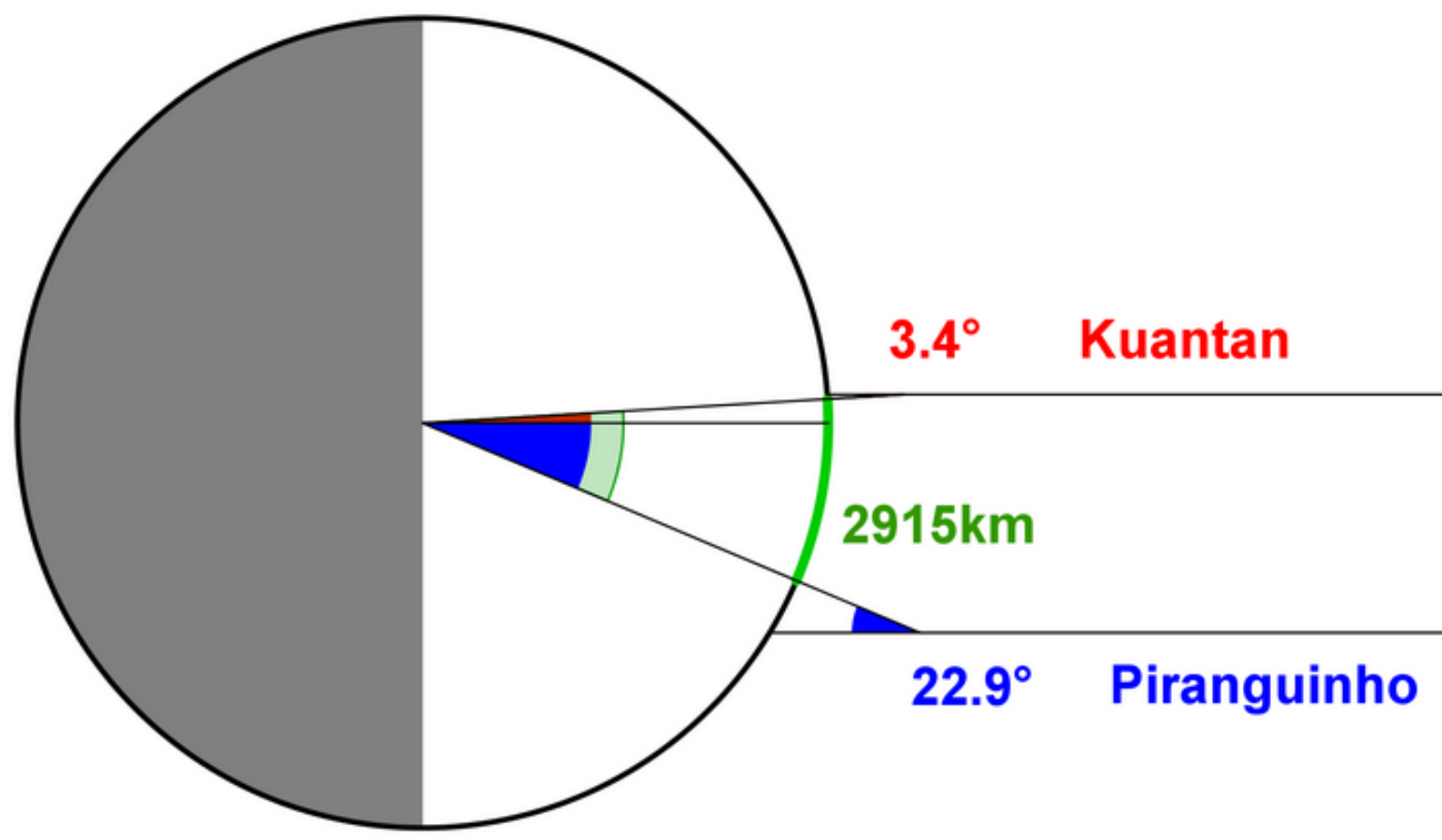


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Kuantan	Malaysia	SMK St Thomas	3.817	103.333

Date	Gnomon	Shadow	Angle
22 March 2018	58.6 cm	3.5 cm	3.4 °
27 March 2018	53 cm	2.1 cm	2.3 °
28 March 2018	53 cm	2.1 cm	2.3 °
29 March 2018	53 cm	0 cm	0 °

22/03/2018 (Kuantan-Malaysia) Latitude: 3.827°

22/03/2018 (Piranguinho-Brazil) Latitude: -22.411°




$$\text{circumference} = \frac{360^\circ \times 2915\text{km}}{3.4^\circ + 22.9^\circ} = 39901 \text{ km}$$



Lafrançaise, France

March 2018

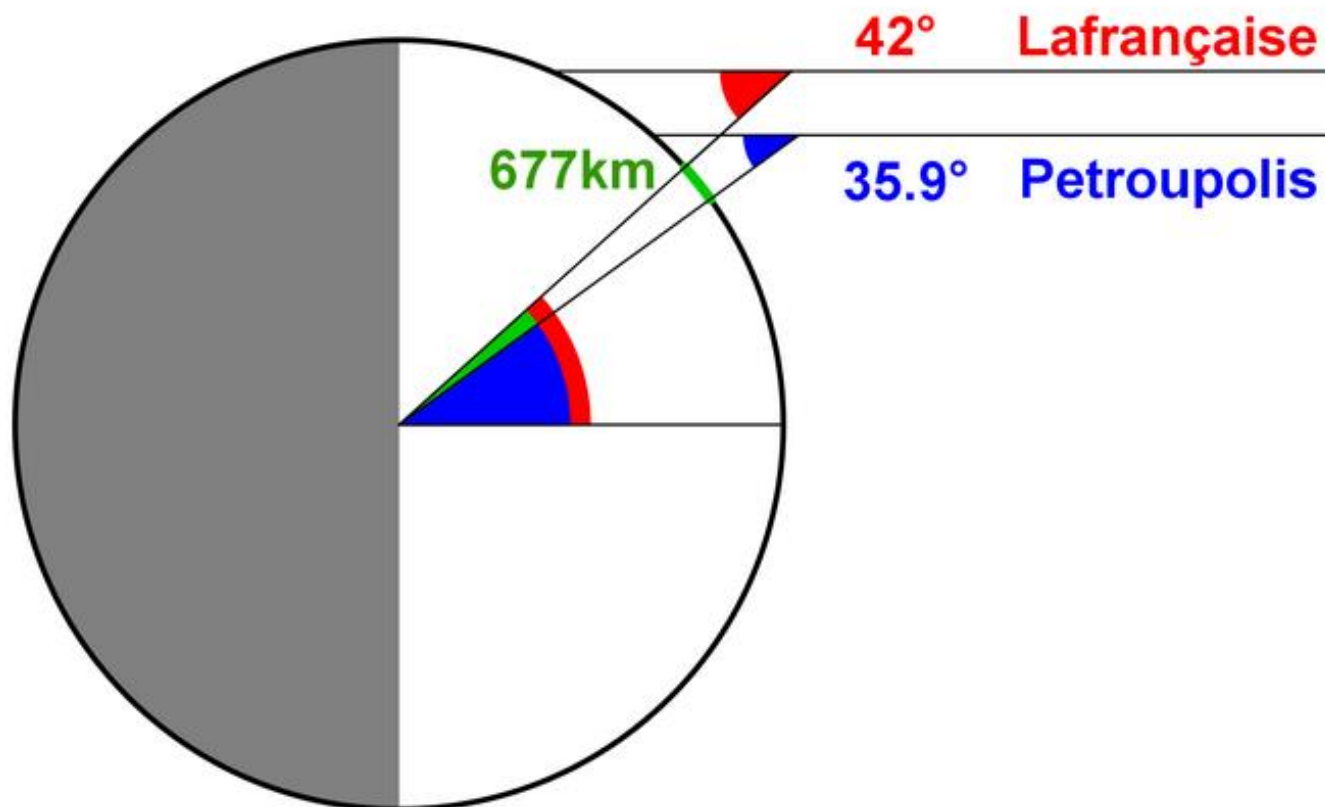


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Lafrançaise	France	Collège Antonin Perbosc	44.127	1.237

Date	Gnomon	Shadow	Angle
08 March 2018	100.0 cm	114.8 cm	48.9 °
09 March 2018	100 cm	113.7 cm	48.7 °
12 March 2018	100 cm	110 cm	47.7 °
15 March 2018	100 cm	106 cm	46.7 °
16 March 2018	100 cm	102.2 cm	45.6 °
19 March 2018	100 cm	99 cm	44.7 °
26 March 2018	100 cm	90 cm	42 °
29 March 2018	100 cm	86 cm	40.7 °
30 March 2018	100 cm	84 cm	40 °

26/03/2018 (Lafrançaise-France) Latitude: 44.127°

26/03/2018 (Petroupolis-Greece) Latitude: 38.036°




$$\text{circumference} = \frac{360^\circ \times 677\text{km}}{42^\circ - 35.9^\circ} = 39954 \text{ km}$$



Margineni, Romania

March 2018

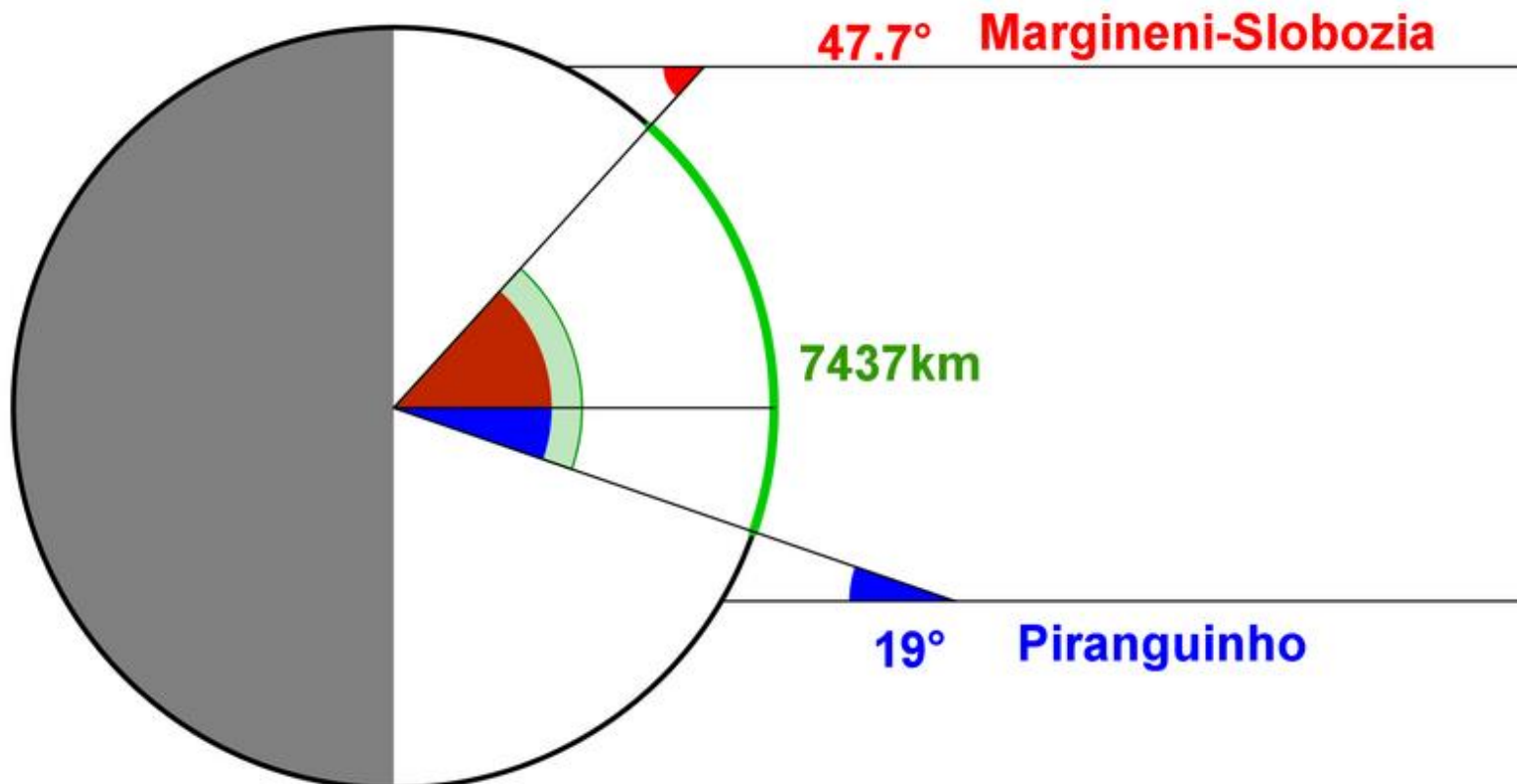


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Mărgineni	Romania	Gh. Popescu School	44.533	24.554

Date	Gnomon	Shadow	Angle
12 March 2018	100 cm	110 cm	47.7 °
13 March 2018	100 cm	111.5 cm	48.1 °
19 March 2018	100 cm	108 cm	47.2 °
28 March 2018	100 cm	103 cm	45.8 °
29 March 2018	100 cm	89 cm	41.7 °
30 March 2018	100 cm	87.5 cm	41.2 °

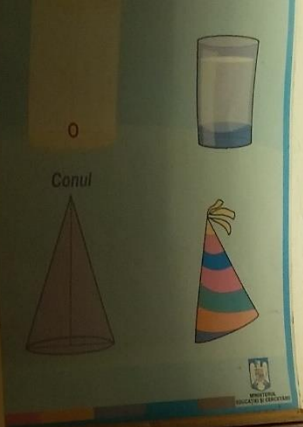
12/03/2018 (Margineni-Slobozia-Romania) Latitude: 44.533°

12/03/2018 (Piranguinho-Brazil) Latitude: -22.411°



$$\text{circumference} = \frac{360^\circ \times 7437\text{km}}{47.7^\circ + 19^\circ} = 40140 \text{ km}$$

Secondary School Gh. Popescu
Romania
29.03.2018



Nea Moudania, Greece

March 2018



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Nea Moudania	Greece	2nd primary school of New Moudania	40.243	23.281

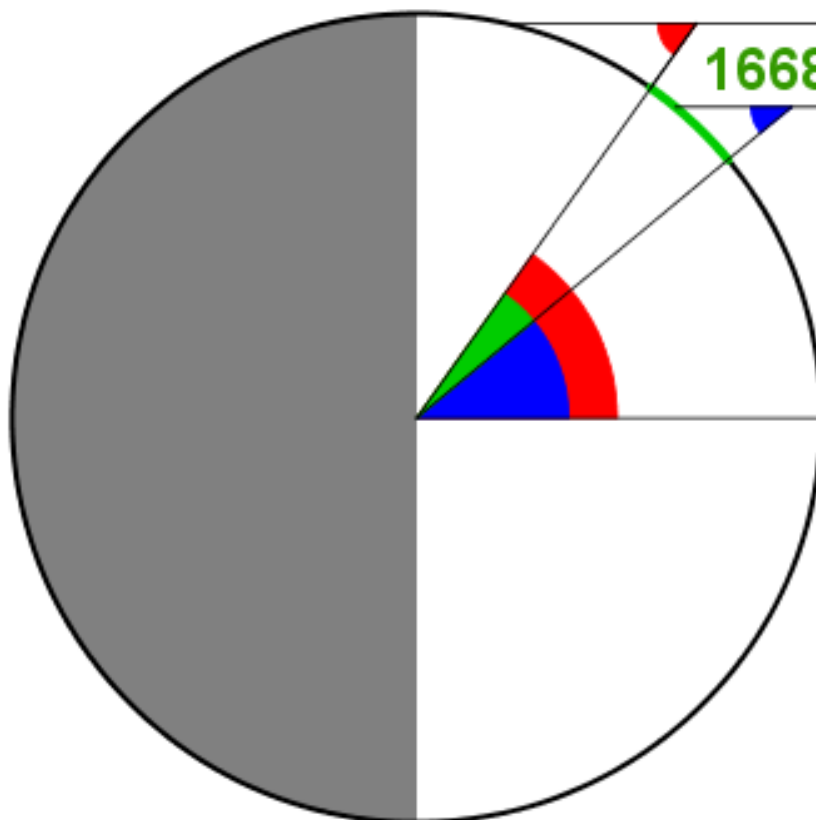
Date	Gnomon	Shadow	Angle
21 March 2018	100 cm	83 cm	39.7 °

21/03/2018 (Tauragė-Lithuania) Latitude: 55.256°

21/03/2018 (Nea Moudania-Greece) Latitude: 40.243°

54.7° Tauragė

39.7° Nea Moudania



$$\text{circumference} = \frac{360^\circ \times 1668\text{km}}{54.7^\circ - 39.7^\circ} = 40032 \text{ km}$$



New Delhi, India

March 2018

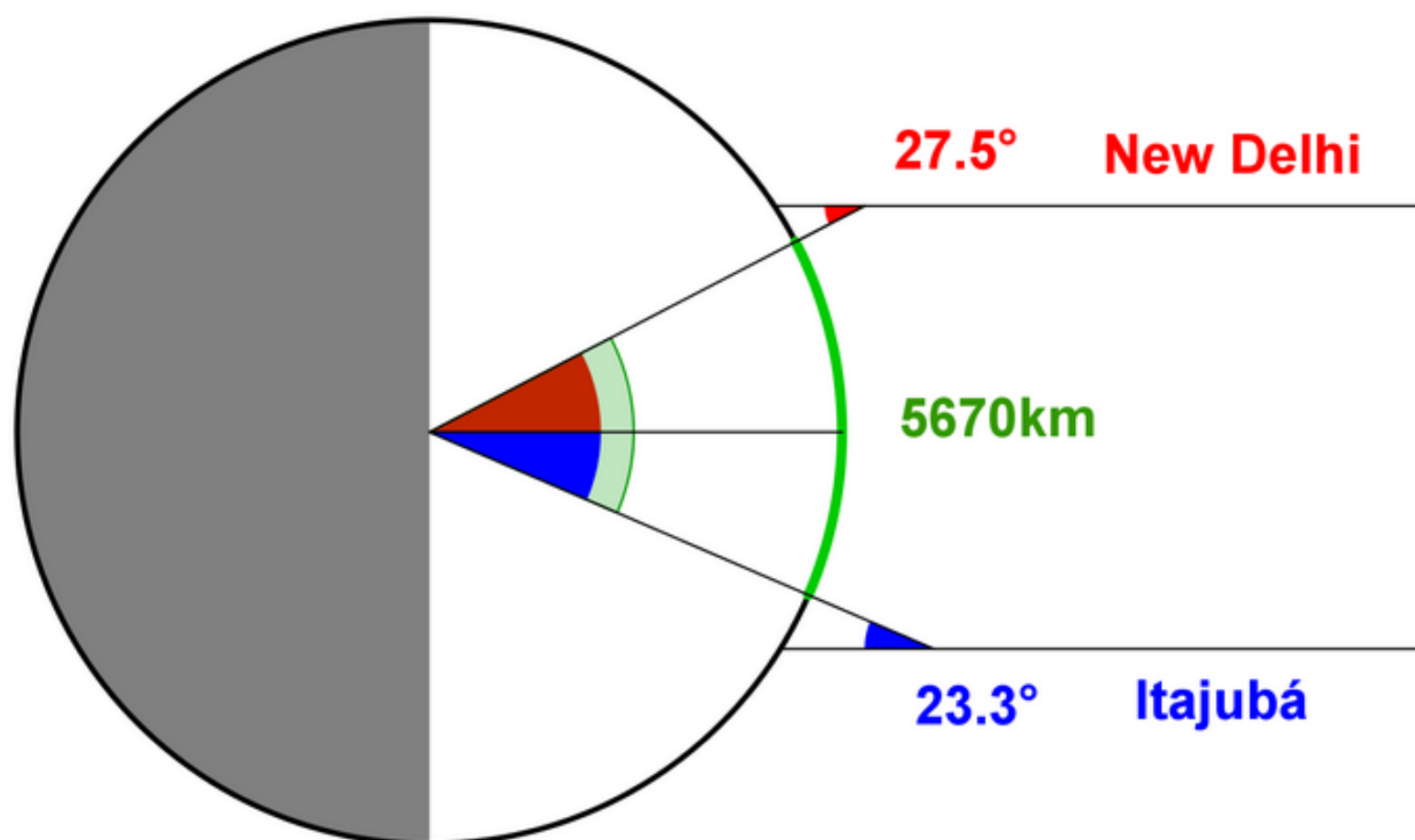


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	New Delhi	India	C V Raman Science Club	28.616	77.195

Date	Gnomon	Shadow	Angle
23 March 2018	28 cm	14.6 cm	27.5 °

23/03/2018 (New Delhi-India) Latitude: 28.616°

23/03/2018 (Itajubá-Brazil) Latitude: -22.415°



$$\text{circumference} = \frac{360^\circ \times 5670\text{km}}{27.5^\circ + 23.3^\circ} = 40181 \text{ km}$$



Paris, France

March 2018

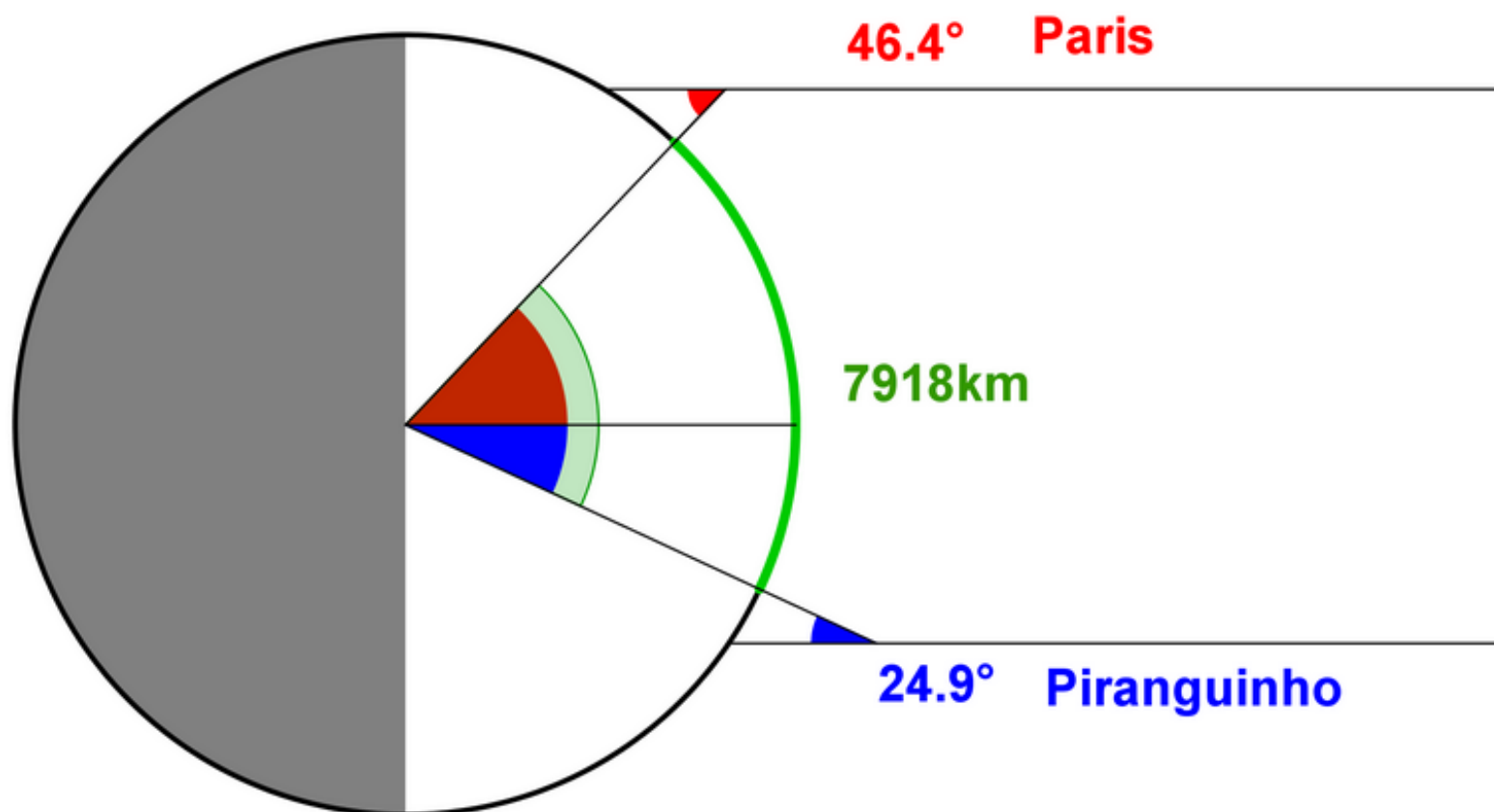


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Paris	France	Tour Eiffel	48.858	2.295

Date	Gnomon	Shadow	Angle
26 March 2018	41 cm	43 cm	46.4 °

26/03/2018 (Paris-France) Latitude: 48.858°

26/03/2018 (Piranguinho-Brazil) Latitude: -22.411°



$$\text{circumference} = \frac{360^\circ \times 7918\text{km}}{46.4^\circ + 24.9^\circ} = 39979 \text{ km}$$



Paysandú, Uruguay

March 2018

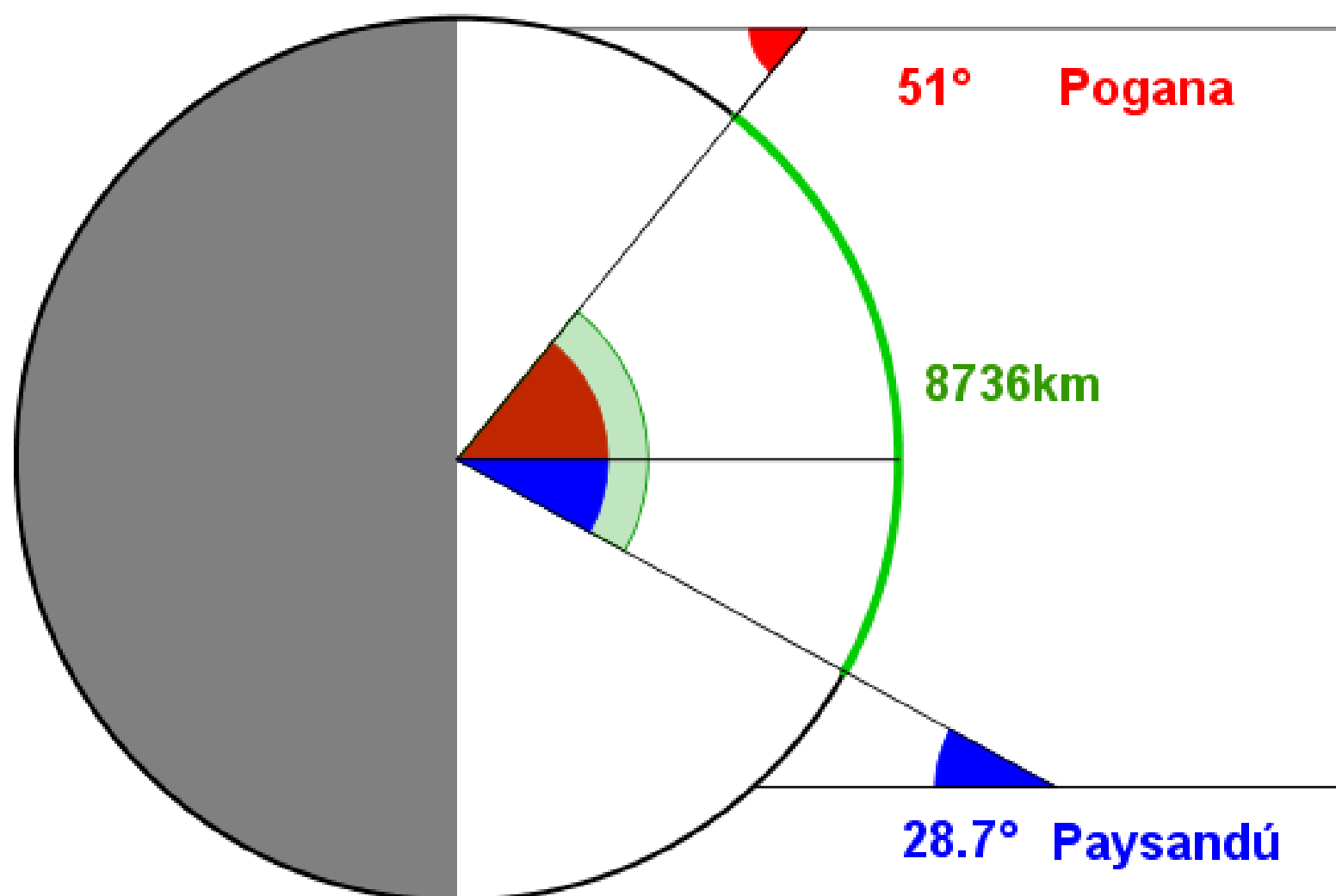


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Paysandú	Uruguay	Liceo N° 1 de Paysandú	-32.316	-58.093

Date	Gnomon	Shadow	Angle
08 March 2018	97 cm	-53 cm	-28.7 °

08/03/2018 (Pogana-Romania) Latitude: 46.313°

08/03/2018 (Paysandú-Uruguay) Latitude: -32.316°




$$\text{circumference} = \frac{360^\circ \times 8736\text{km}}{51^\circ + 28.7^\circ} = 39460 \text{ km}$$



Pergamino, Argentina

March 2018

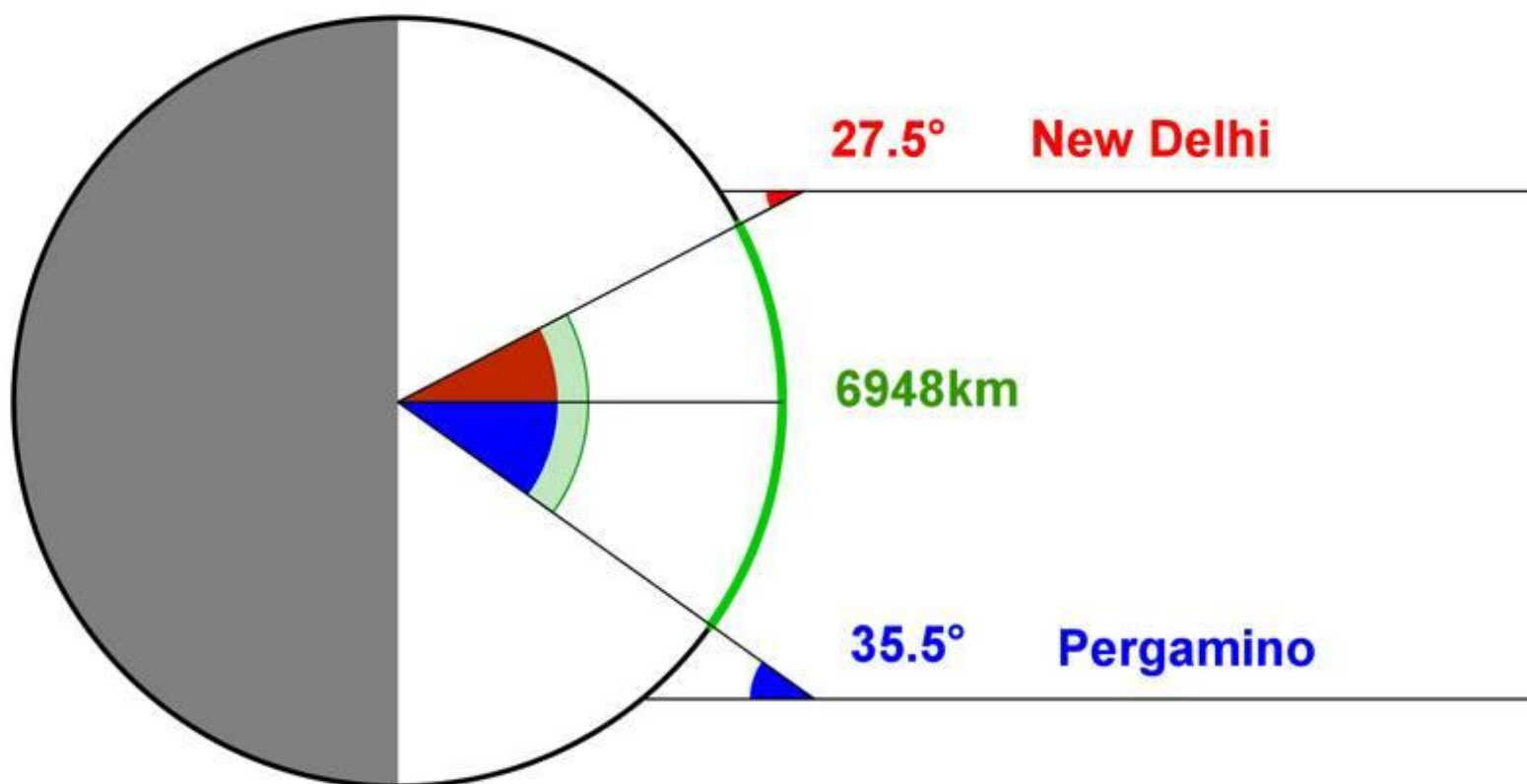


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Pergamino	Argentina	Cesar Arrigo	-33.923	-60.573

Date	Gnomon	Shadow	Angle
23 March 2018	210 cm	-150 cm	-35.5 °

23/03/2018 (New Delhi-India) Latitude: 28.616°

23/03/2018 (Pergamino-Argentina) Latitude: -33.923°



$$\text{circumference} = \frac{360^\circ \times 6948\text{km}}{27.5^\circ + 35.5^\circ} = 39703 \text{ km}$$

PERGAMINO

* LAT: $33^{\circ} 53' 23''$ S

* LOG: $60^{\circ} 34' 24''$ O

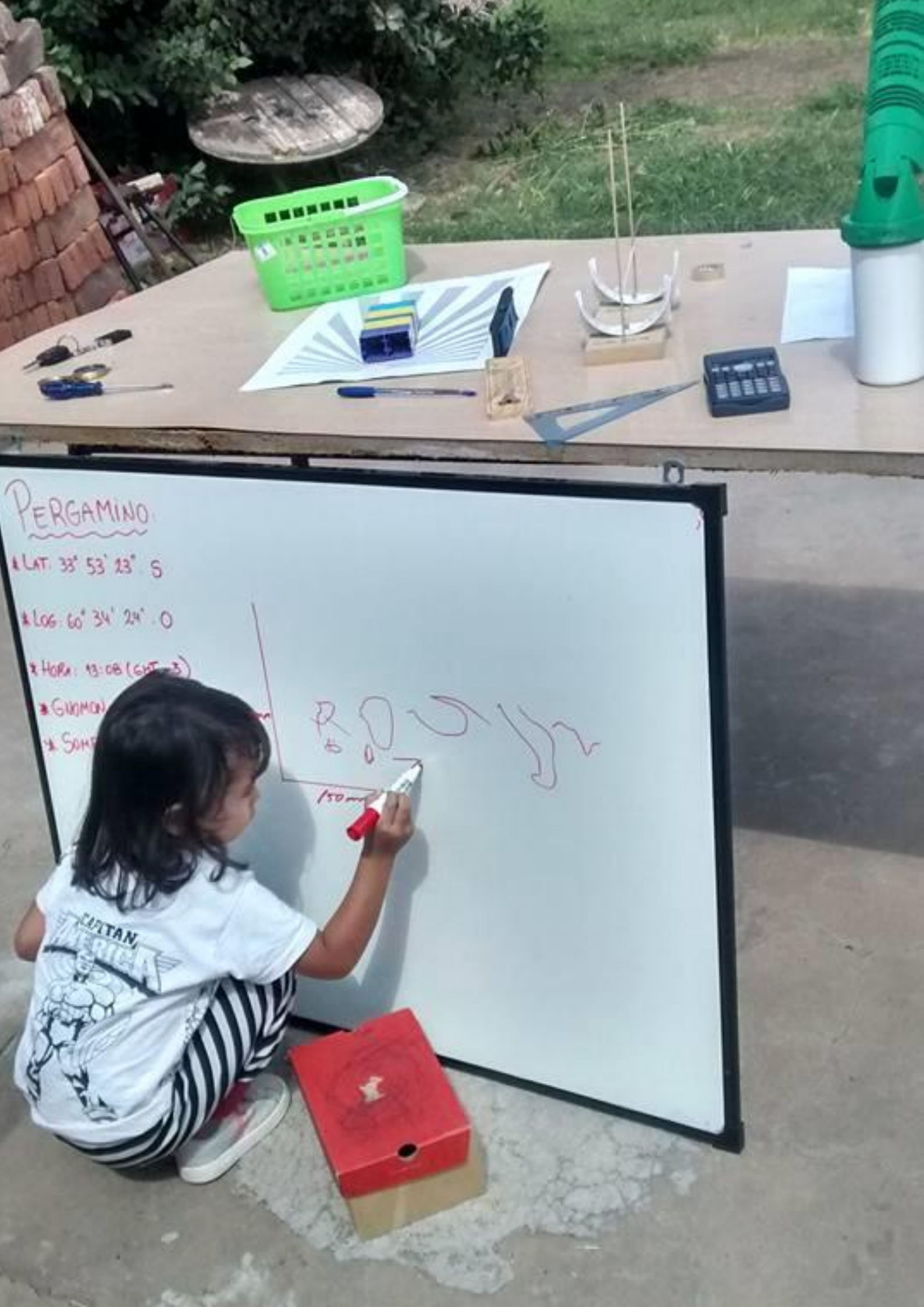
* Hora: 13:08 (GMT-3)

* GUMMON

* SAM




150m



Petroupoli, Greece

March 2018

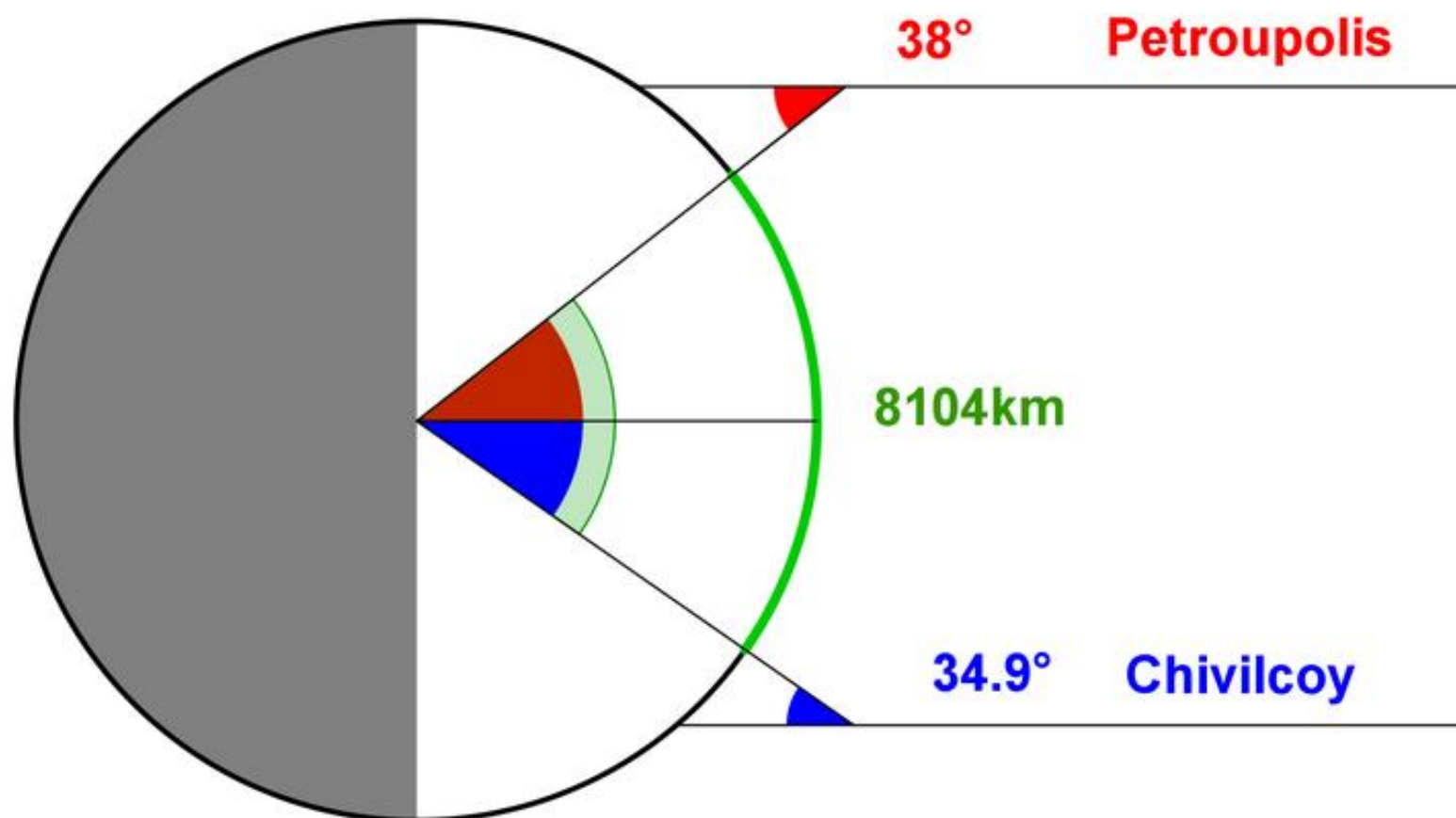


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Petroupoli	Greece	4o Junior High School	38.036	23.674

Date	Gnomon	Shadow	Angle
19 March 2018	52.3 cm	41.6 cm	38.5 °
20 March 2018	52.3 cm	40.8 cm	38 °
26 March 2018	52.3 cm	37.9 cm	35.9 °

20/03/2018 (Petroupolis-Greece) Latitude: 38.036°

20/03/2018 (Chivilcoy-Argentina) Latitude: -34.911°



$$\text{circumference} = \frac{360^\circ \times 8104\text{km}}{38^\circ + 34.9^\circ} = 40020 \text{ km}$$



Piraeus, Greece

March 2018

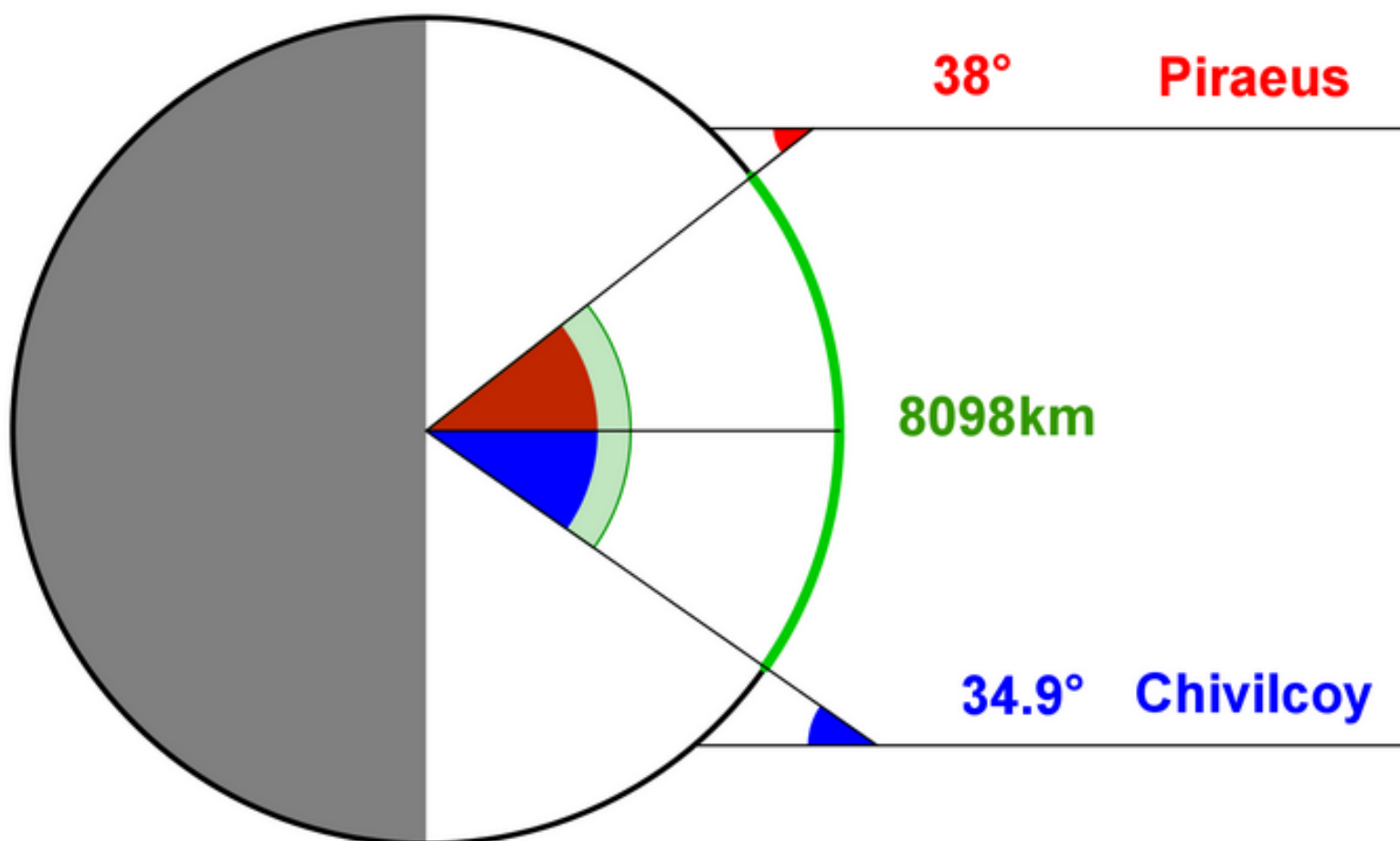


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Piraeus	Greece	2nd Junior High School of Korydallos	37.977	23.655

Date	Gnomon	Shadow	Angle
05 March 2018	100 cm	91 cm	42.3 °
06 March 2018	100 cm	96 cm	43.8 °
15 March 2018	100 cm	81 cm	39 °
20 March 2018	100 cm	78 cm	38 °

20/03/2018 (Piraeus-Greece) Latitude: 37.977°

20/03/2018 (Chivilcoy-Argentina) Latitude: -34.911°



$$\text{circumference} = \frac{360^\circ \times 8098\text{km}}{38^\circ + 34.9^\circ} = 39990 \text{ km}$$



Piranguinho, Brazil

March 2018

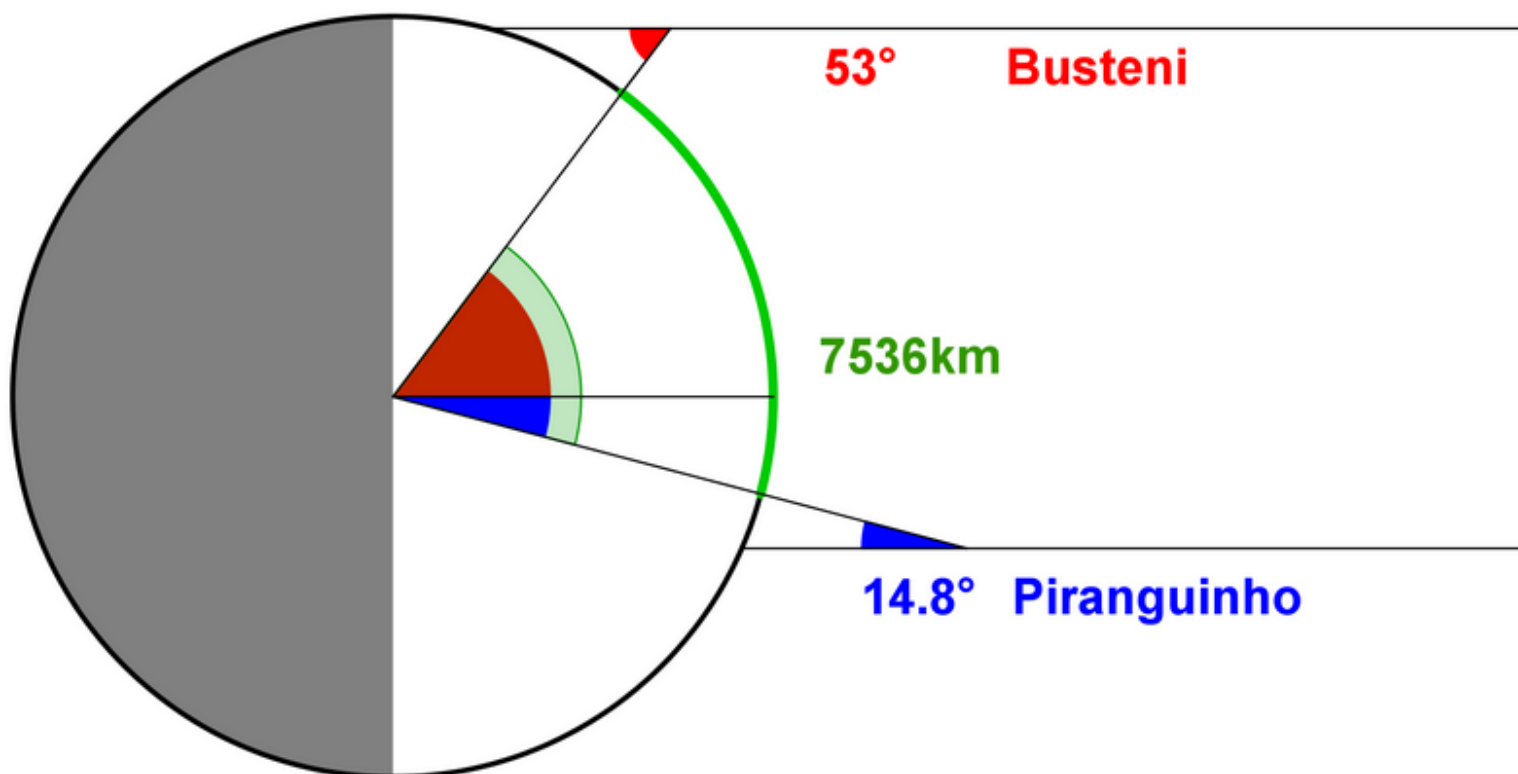


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Piranguinho	Brazil	Universidade Federal de Itajubá	-22.411	-45.535

Date	Gnomon	Shadow	Angle
01 March 2018	70 cm	-18.5 cm	-14.8 °
02 March 2018	70 cm	-19.1 cm	-15.3 °
07 March 2018	70 cm	-21.6 cm	-17.1 °
12 March 2018	70 cm	-24.1 cm	-19 °
13 March 2018	70 cm	-24.8 cm	-19.5 °
14 March 2018	70 cm	-25.3 cm	-19.9 °
22 March 2018	70 cm	-29.6 cm	-22.9 °
26 March 2018	70 cm	-32.5 cm	-24.9 °
27 March 2018	70 cm	-32.3 cm	-24.8 °
28 March 2018	70 cm	-33.8 cm	-25.8 °
29 March 2018	70 cm	-34.6 cm	-26.3 °

01/03/2018 (Busteni-Romania) Latitude: 45.416°

01/03/2018 (Piranguinho-Brazil) Latitude: -22.411°




$$\text{circumference} = \frac{360^\circ \times 7536\text{km}}{53^\circ + 14.8^\circ} = 40014 \text{ km}$$



Pogana, Romania

March 2018

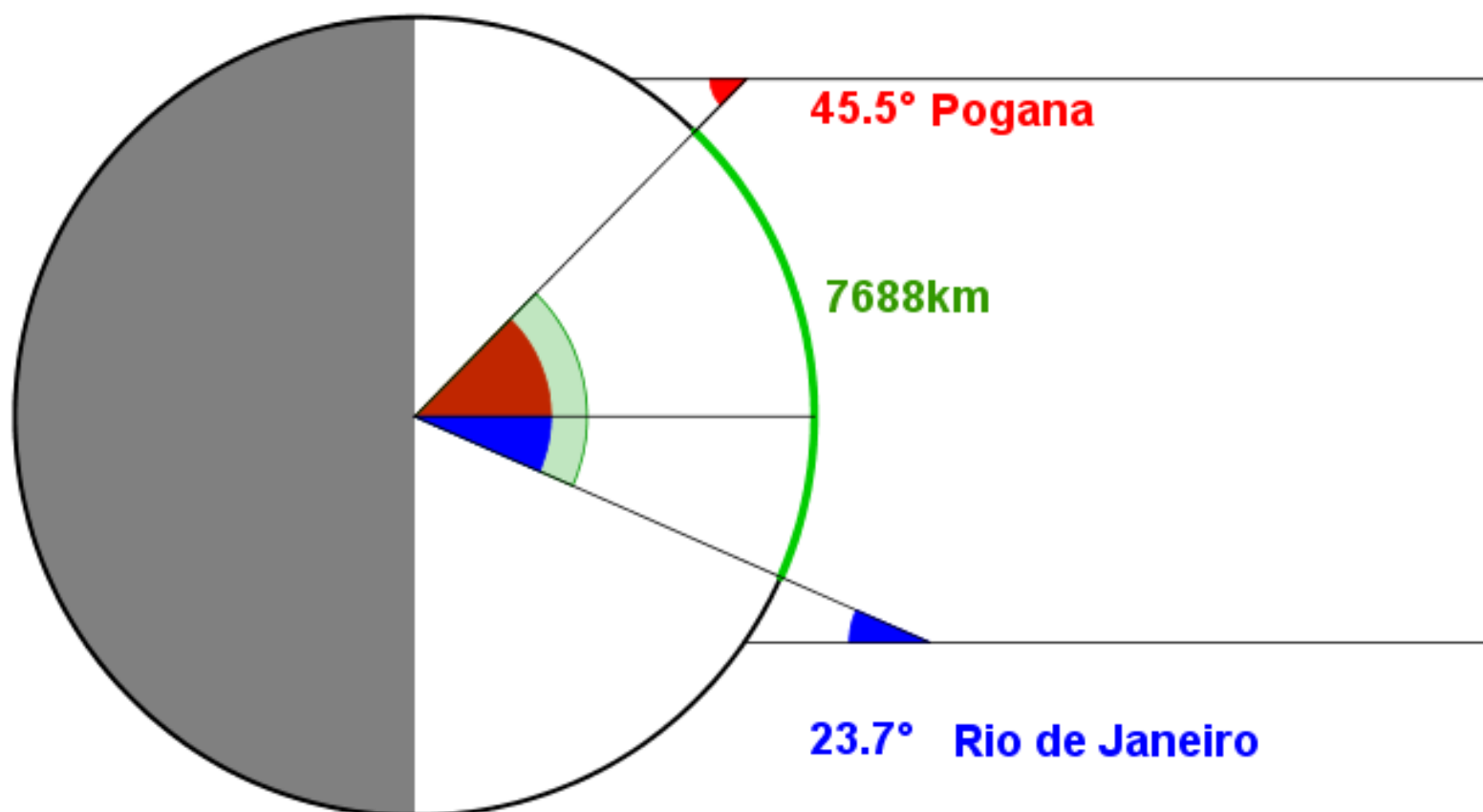


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Pogana	Romania	Scoala Gimnaziala Nr.1 Pogana	46.313	27.575

Date	Gnomon	Shadow	Angle
08 March 2018	30 cm	37 cm	51 °
09 March 2018	28.4 cm	35 cm	50.9 °
15 March 2018	100 cm	118 cm	49.7 °
16 March 2018	30.0 cm	33.0 cm	47.7 °
19 March 2018	30 cm	31.5 cm	46.4 °
27 March 2018	60 cm	61 cm	45.5 °
29 March 2018	57.4 cm	54 cm	43.3 °
30 March 2018	64 cm	56 cm	41.2 °

27/03/2018 (Pogana-Romania) Latitude: 46.313°

27/03/2018 (Rio de Janeiro-Brazil) Latitude: -22.89°



$$\text{circumference} = \frac{360^\circ \times 7688\text{km}}{45.5^\circ + 23.7^\circ} = 39995 \text{ km}$$



Quy Nhon, Vietnam

March 2018

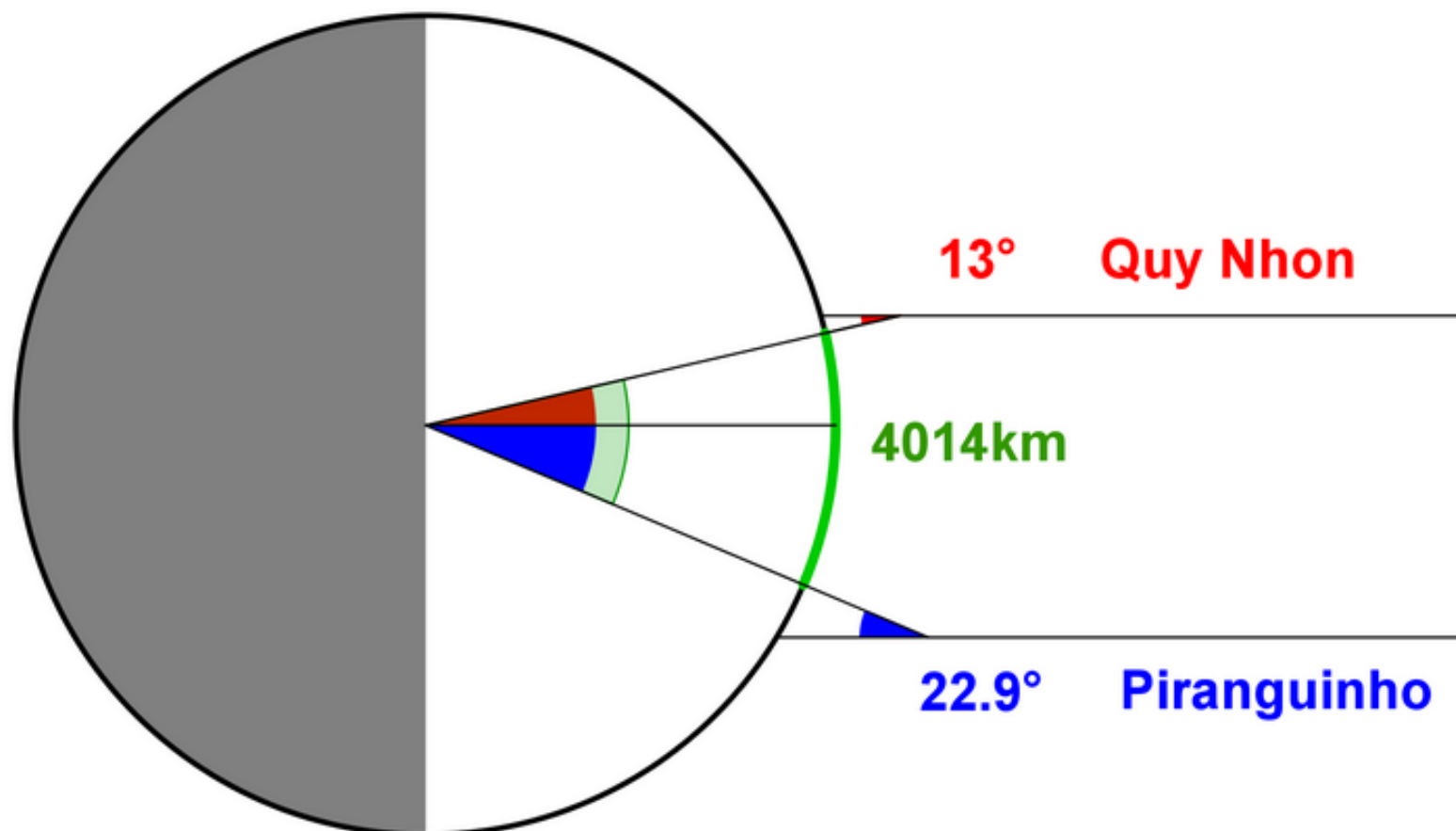


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Quy Nhon	Vietnam	Center for Science Exploration	13.719	109.213

Date	Gnomon	Shadow	Angle
22 March 2018	146 cm	33.7 cm	13 °

22/03/2018 (Quy Nhon-Vietnam) Latitude: 13.719°

22/03/2018 (Piranguinho-Brazil) Latitude: -22.411°



$$\text{circumference} = \frac{360^\circ \times 4014\text{km}}{13^\circ + 22.9^\circ} = 40252 \text{ km}$$



Râmnicu Vâlcea, Romania

March 2018

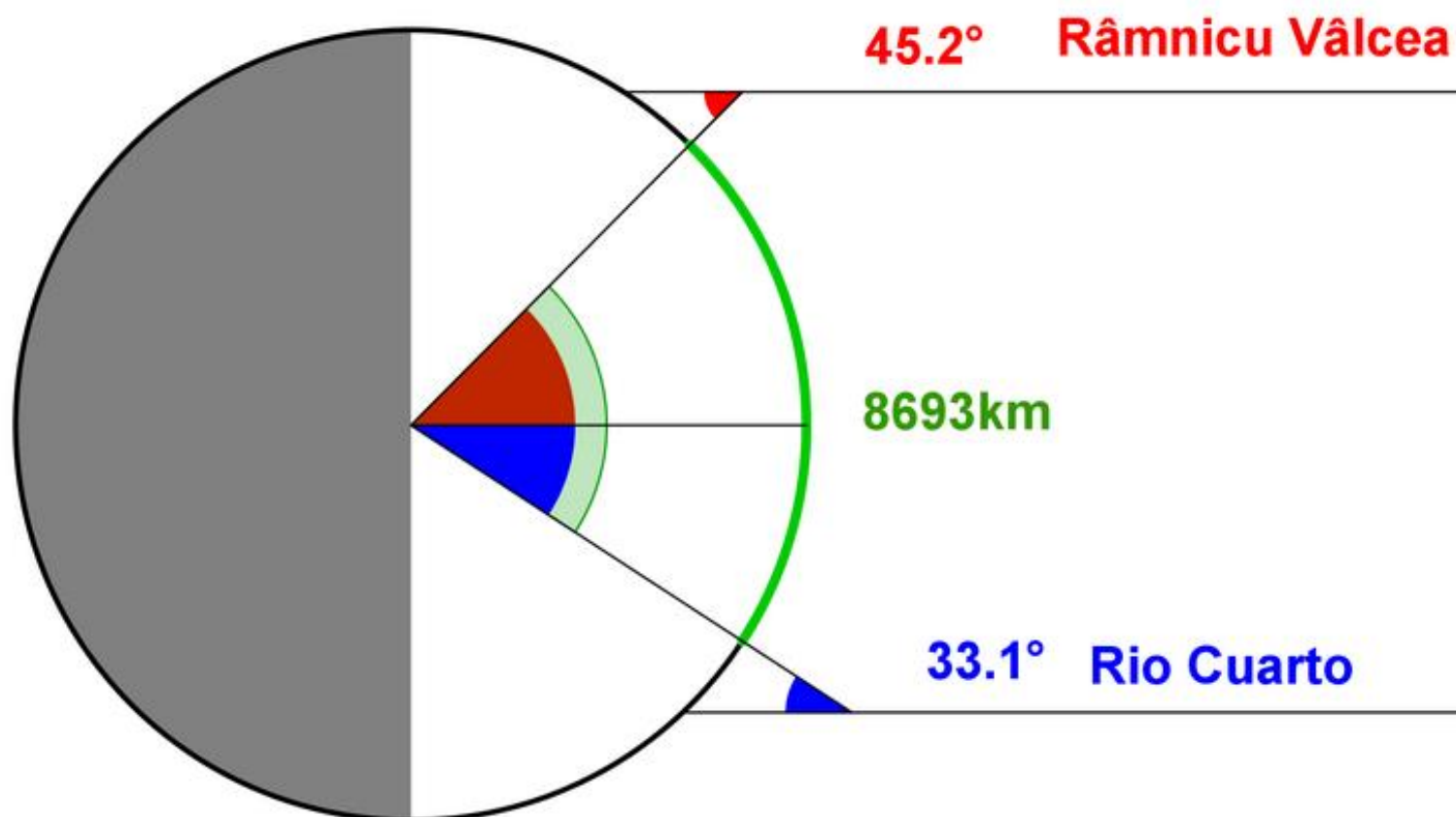


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Râmnicu Vâlcea	Romania	S.G. Nr4 Gradinita Dumbrava Minuata	45.093	24.358

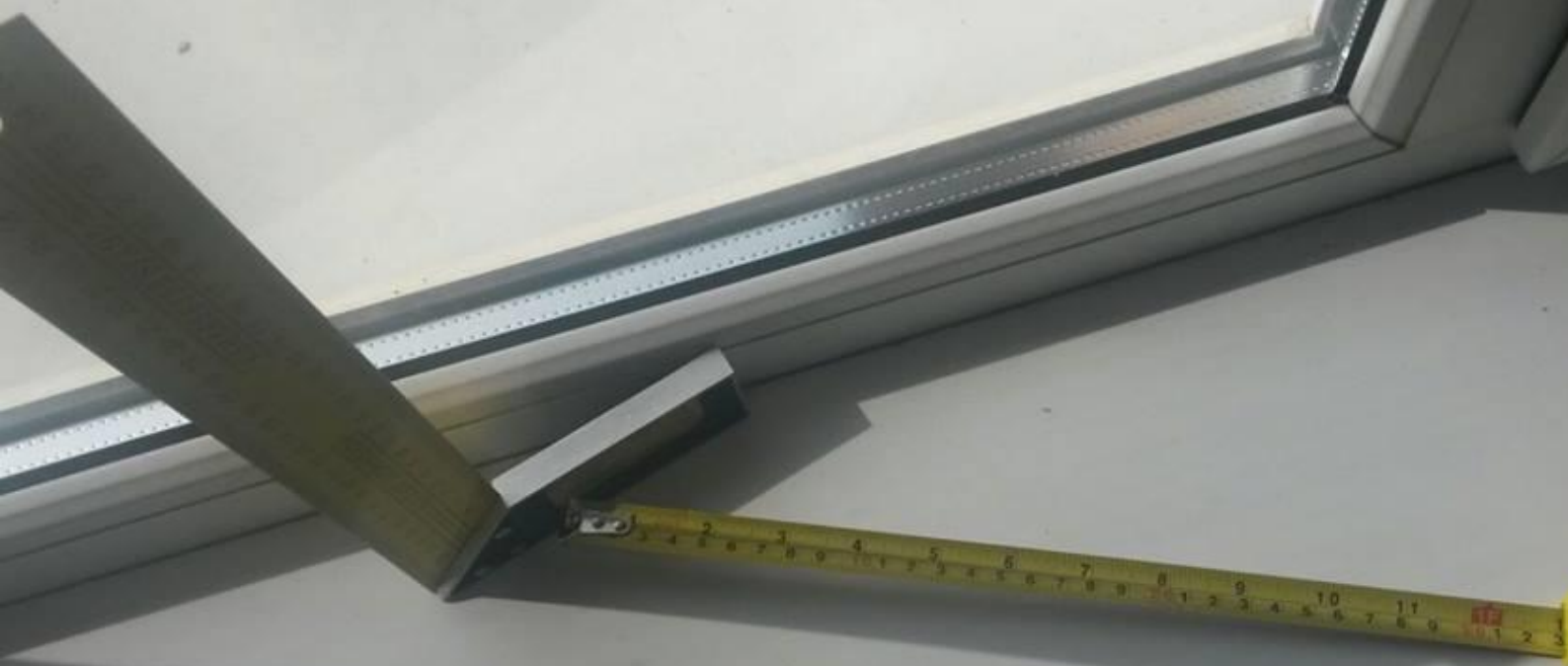
Date	Gnomon	Shadow	Angle
20 March 2018	30 cm	30.2 cm	45.2 °

20/03/2018 (Râmnicu Vâlcea-Romania) Latitude: 45.093°

20/03/2018 (Rio Cuarto-Argentina) Latitude: -33.149°



$$\text{circumference} = \frac{360^\circ \times 8693\text{km}}{45.2^\circ + 33.1^\circ} = 39968 \text{ km}$$



Rhodes, Greece

March 2018

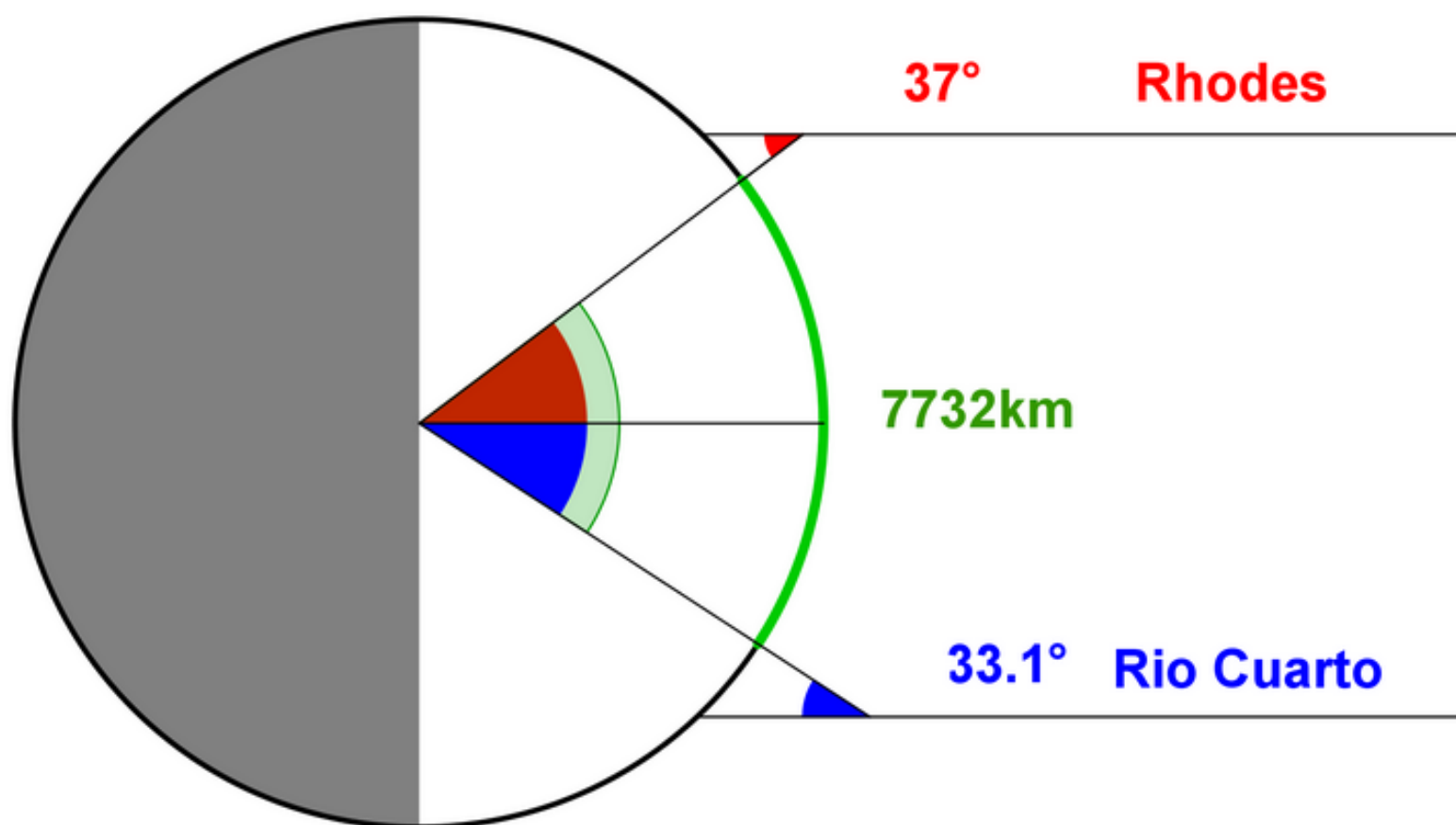


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rhodes	Greece	2o Experimental Primary School of Rhodes	36.450	28.371

Date	Gnomon	Shadow	Angle
20 March 2018	34.8 cm	26.2 cm	37 °

20/03/2018 (Rhodes-Greece) Latitude: 36.45°

20/03/2018 (Rio Cuarto-Argentina) Latitude: -33.149°




$$\text{circumference} = \frac{360^\circ \times 7732\text{km}}{37^\circ + 33.1^\circ} = 39708 \text{ km}$$



Rio Cuarto, Argentina

March 2018

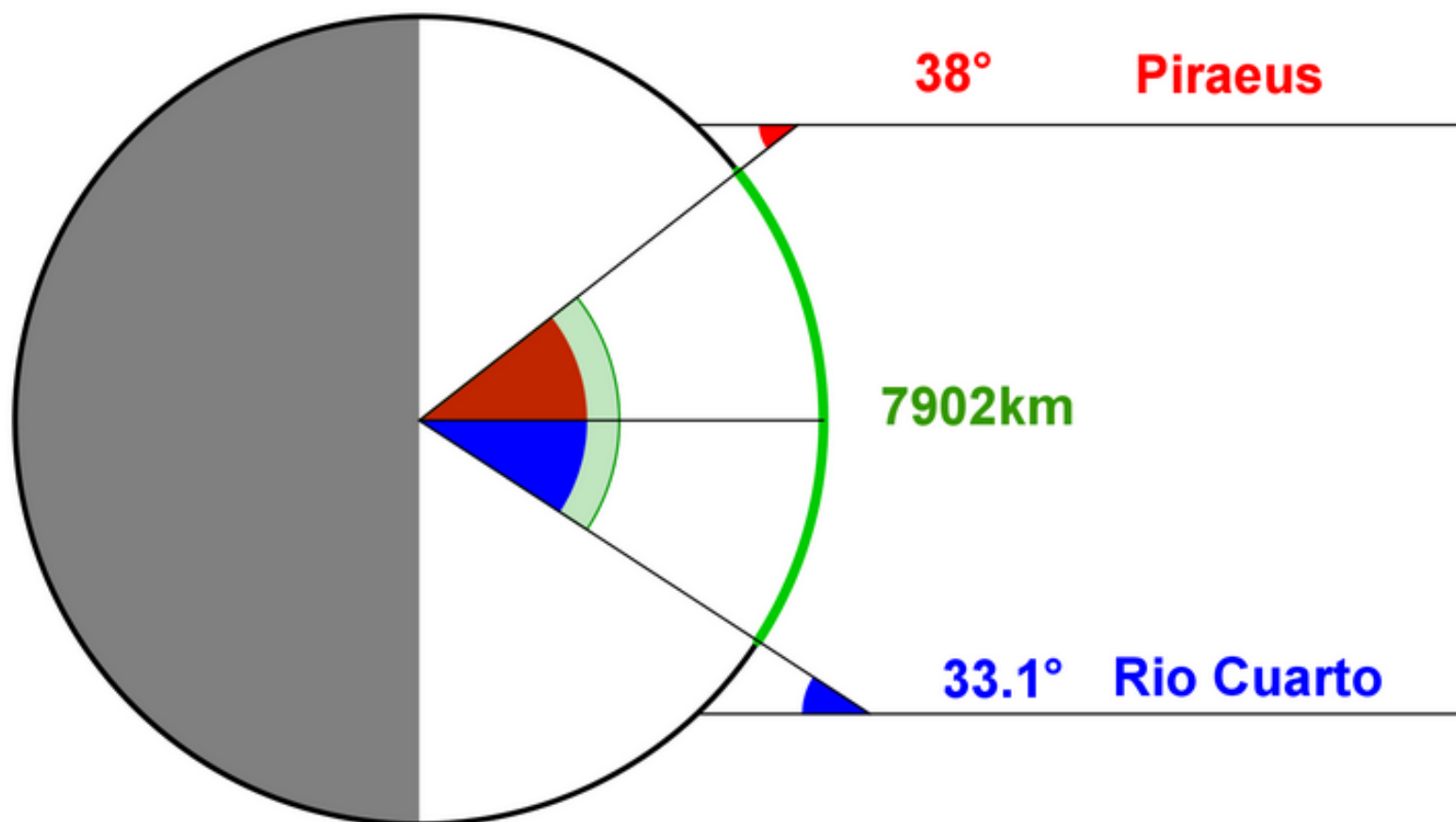


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio Cuarto	Argentina	Colegio Concordia	-33.149	-64.351

Date	Gnomon	Shadow	Angle
14 March 2018	53.5 cm	-30.2 cm	-29.4 °
16 March 2018	53.5 cm	-30.2 cm	-29.4 °
20 March 2018	19 cm	-12.4 cm	-33.1 °
29 March 2018	53.5 cm	-35.4 cm	-33.5 °

20/03/2018 (Piraeus-Greece) Latitude: 37.977°

20/03/2018 (Rio Cuarto-Argentina) Latitude: -33.149°




$$\text{circumference} = \frac{360^\circ \times 7902\text{km}}{38^\circ + 33.1^\circ} = 40010 \text{ km}$$



Rio de Janeiro CENOM, Brazil

March 2018

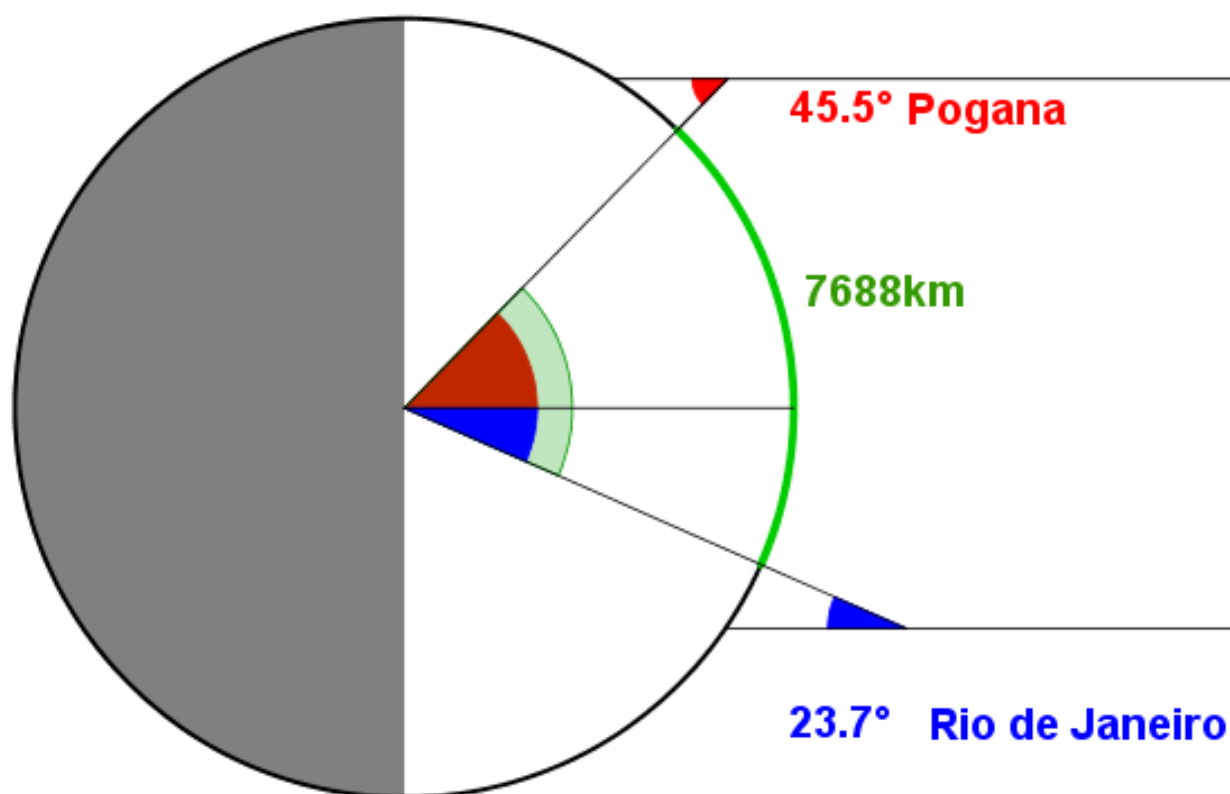


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	Centro Educacional Nosso Mundo	-22.890	-43.317

Date	Gnomon	Shadow	Angle
06 March 2018	30.0 cm	-7.0 cm	-13.1 °
07 March 2018	30 cm	-7 cm	-13.1 °
15 March 2018	30 cm	-9 cm	-16.7 °
16 March 2018	30 cm	-9 cm	-16.7 °
19 March 2018	30 cm	-10 cm	-18.4 °
20 March 2018	100 cm	-35 cm	-19.3 °
21 March 2018	100 cm	-40 cm	-21.8 °
23 March 2018	30 cm	-11 cm	-20.1 °
26 March 2018	100 cm	-44 cm	-23.7 °
27 March 2018	100 cm	-44 cm	-23.7 °
28 March 2018	100 cm	-45 cm	-24.2 °

27/03/2018 (Pogana-Romania) Latitude: 46.313°

27/03/2018 (Rio de Janeiro-Brazil) Latitude: -22.89°



$$\text{circumference} = \frac{360^\circ \times 7688\text{km}}{45.5^\circ + 23.7^\circ} = 39995 \text{ km}$$



Rionegro, Colombia

March 2018

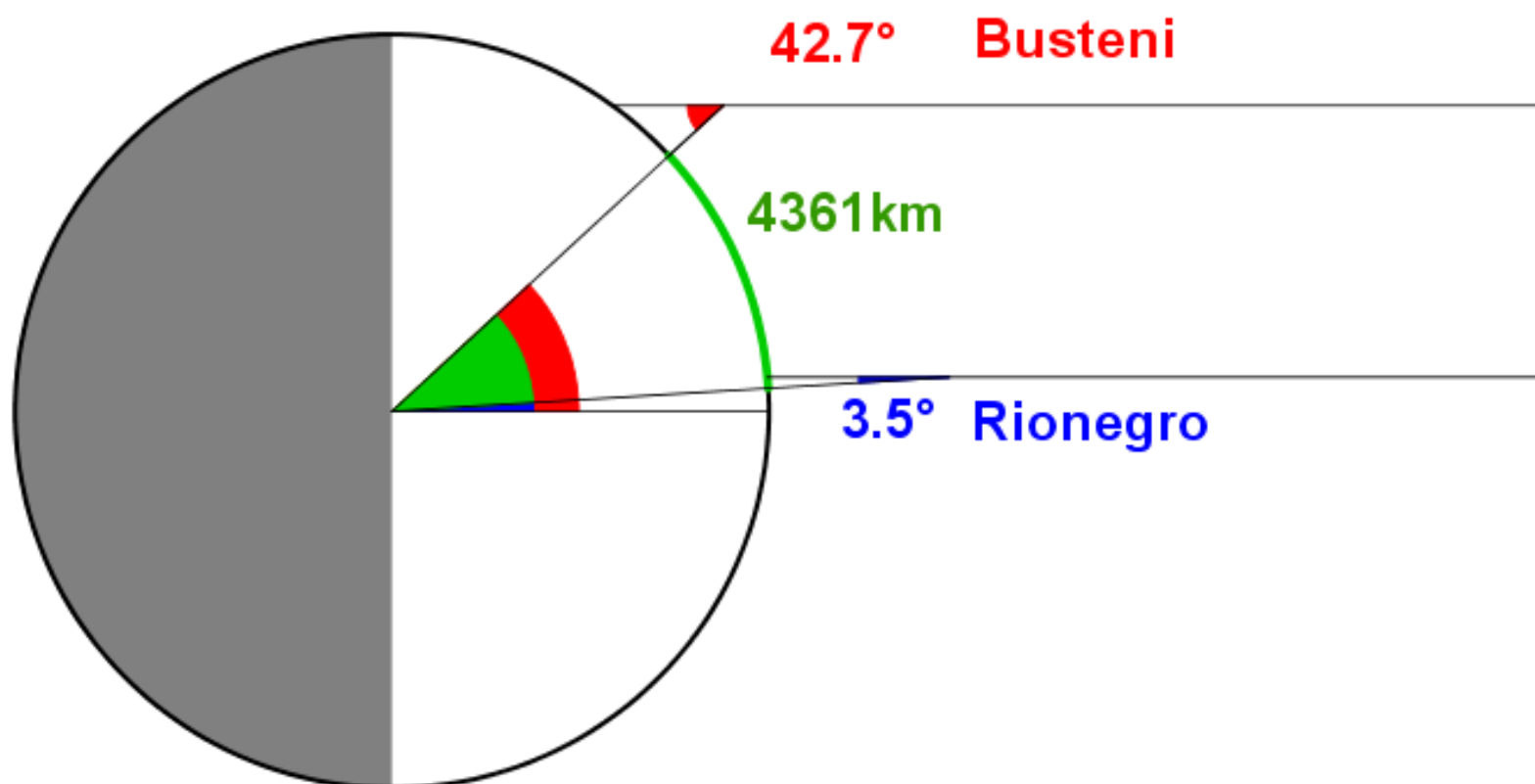


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rionegro	Colombia	Colegio Campestre San Nicolás	6.163	-75.359


Date	Gnomon	Shadow	Angle
02 March 2018	31 cm	8 cm	14.5 °
09 March 2018	31 cm	5.3 cm	9.7 °
21 March 2018	31 cm	3.3 cm	6.1 °
27 March 2018	60.6 cm	3.7 cm	3.5 °


27/03/2018 (Busteni-Romania) Latitude: 45.416°

27/03/2018 (Rionegro-Colombia) Latitude: 6.163°



$$\text{circumference} = \frac{360^\circ \times 4361 \text{ km}}{42.7^\circ - 3.5^\circ} = 40050 \text{ km}$$

 FUNDACIÓN EDUCATIVA SAN NICOLÁS - FESNI


 COLEGIO CAMPESTRE SAN NICOLÁS



Saint-Just, France

March 2018

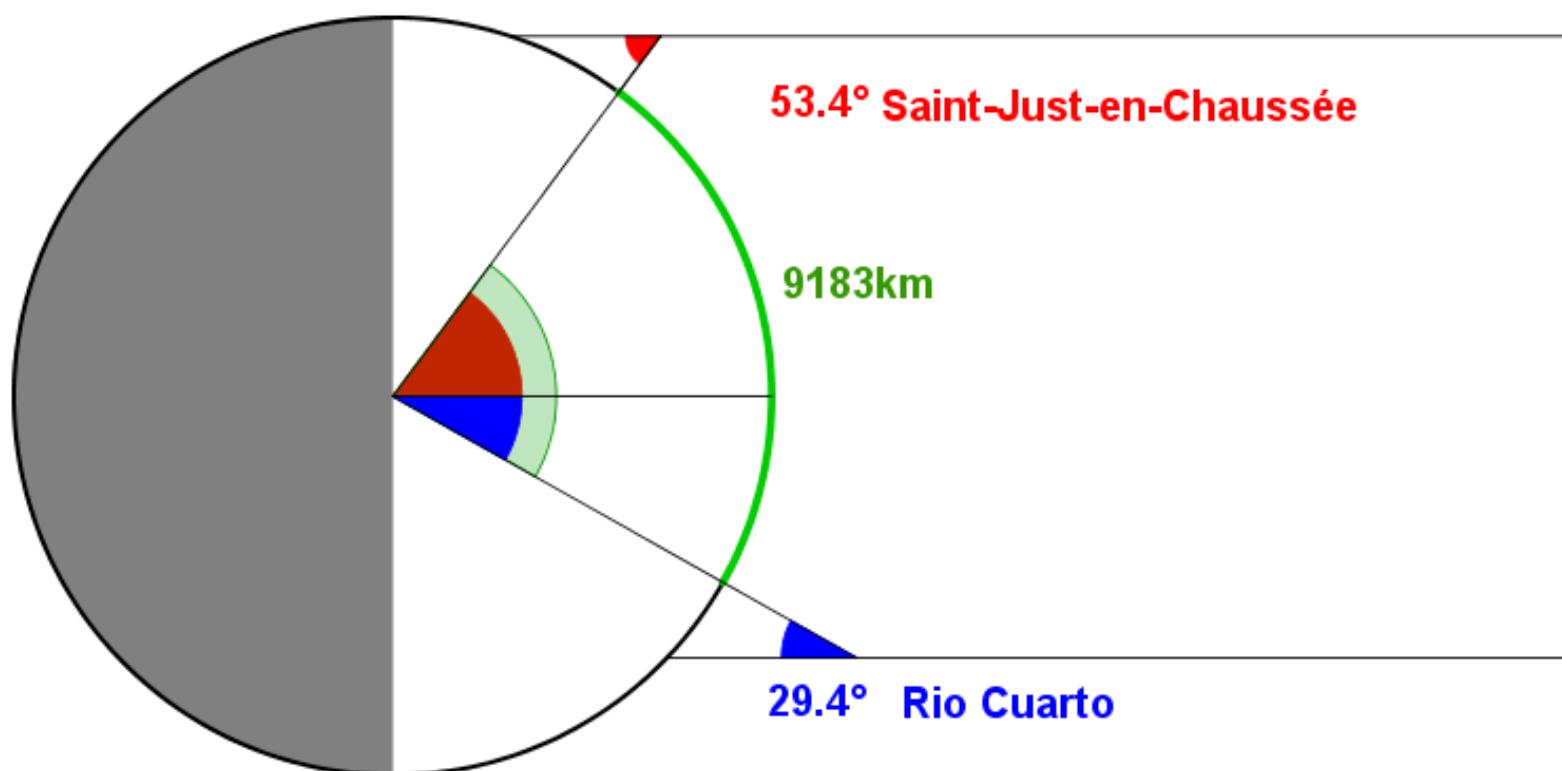


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Saint-Just	France	Collège Louise Michel	49.502	2.425

Date	Gnomon	Shadow	Angle
16 March 2018	31.6 cm	42.5 cm	53.4 °
20 March 2018	32.3 cm	37.6 cm	49.3 °

16/03/2018 (Saint-Just-en-Chaussée-France) Latitude: 49.502°

16/03/2018 (Rio Cuarto-Argentina) Latitude: -33.149°




$$\text{circumference} = \frac{360^\circ \times 9183\text{km}}{53.4^\circ + 29.4^\circ} = 39926 \text{ km}$$



Tauragė, Lithuania

March 2018



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Tauragė	Lithuania	Tauragės Šaltinio progimnazija	55.256	22.300

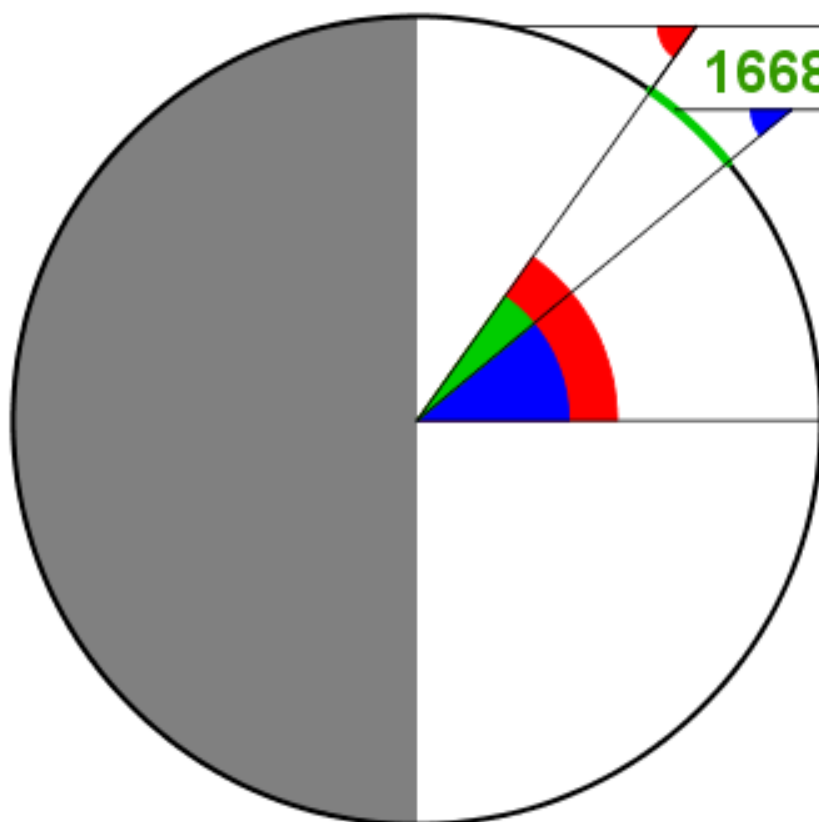
Date	Gnomon	Shadow	Angle
21 March 2018	100 cm	141 cm	54.7 °

21/03/2018 (Tauragė-Lithuania) Latitude: 55.256°

21/03/2018 (Nea Moudania-Greece) Latitude: 40.243°

54.7° Tauragė

39.7° Nea Moudania




$$\text{circumference} = \frac{360^\circ \times 1668\text{km}}{54.7^\circ - 39.7^\circ} = 40032 \text{ km}$$



Úbeda, Spain

March 2018

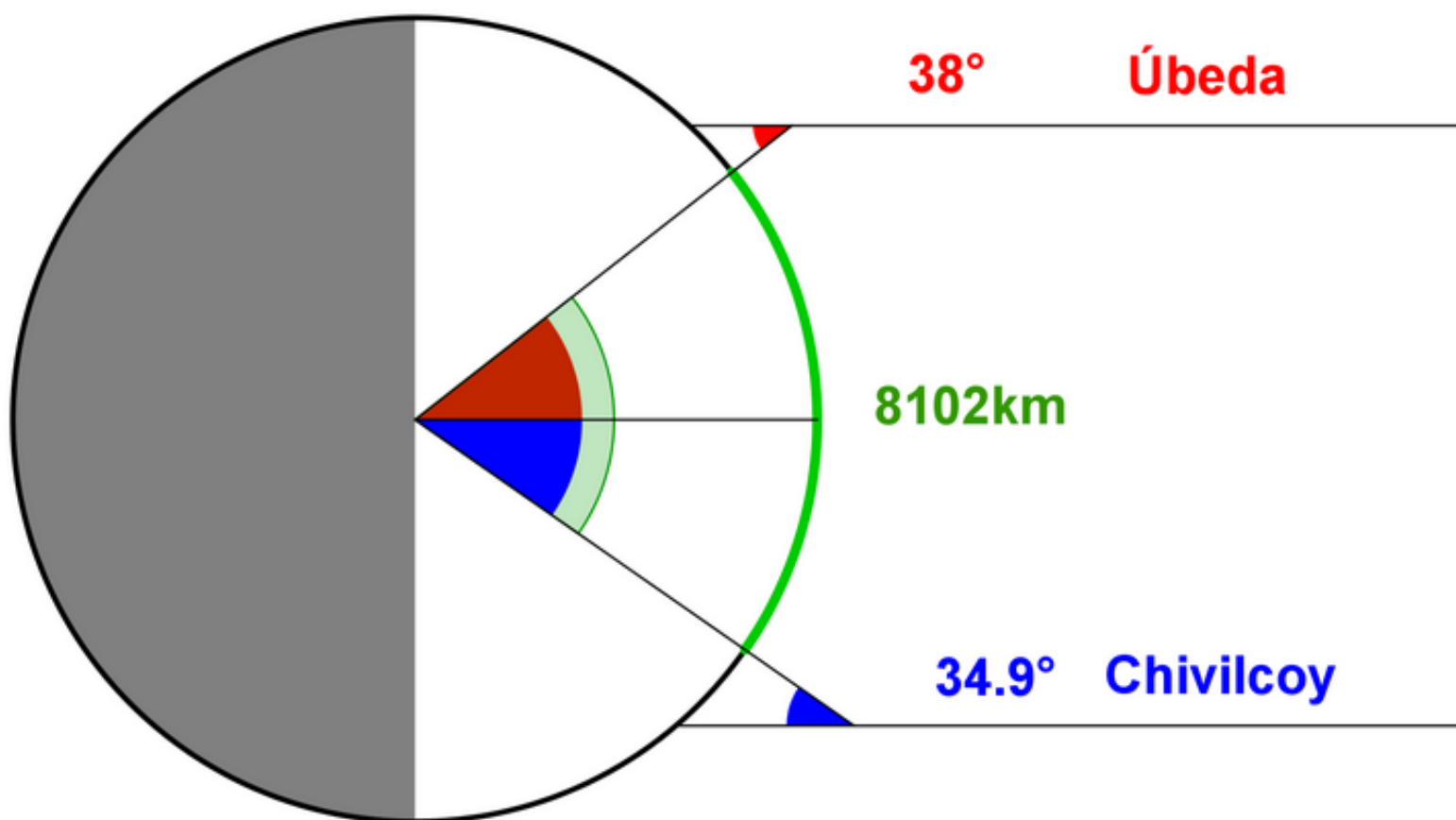


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Úbeda	Spain	Colegio Salesiano Santo Domingo Savio	38.017	-3.367

Date	Gnomon	Shadow	Angle
20 March 2018	102.5 cm	80 cm	38 °
21 March 2018	121 cm	92 cm	37.2 °

20/03/2018 (Úbeda-Spain) Latitude: 38.017°

20/03/2018 (Chivilcoy-Argentina) Latitude: -34.911°



$$\text{circumference} = \frac{360^\circ \times 8102\text{km}}{38^\circ + 34.9^\circ} = 40010 \text{ km}$$



