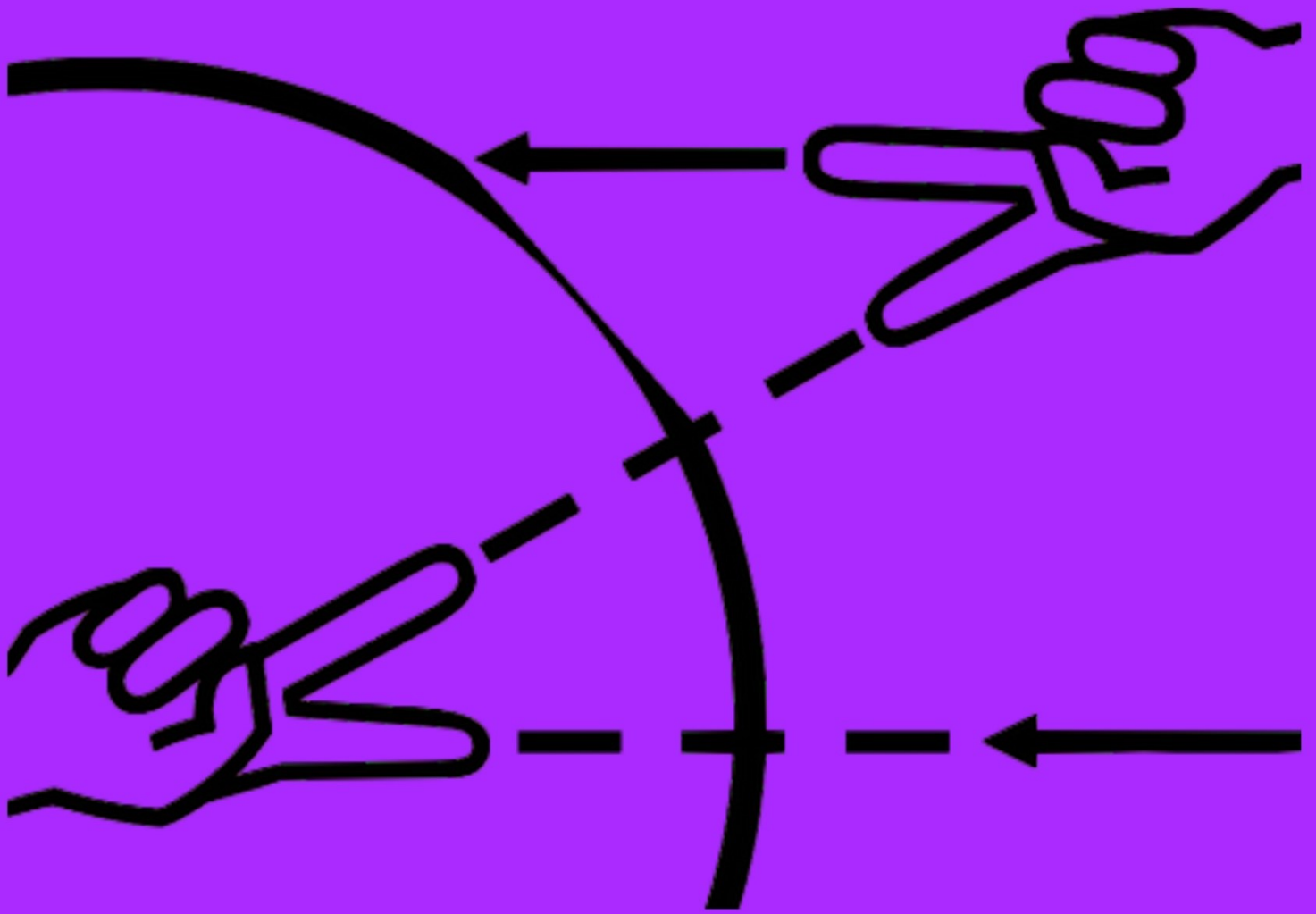


Eratosthenes



3 Continents

8 Countries

12 Schools

53 Measures

3 Continents

8 Countries

12 Schools

53 Measures

E u r o p e (6)

Greece

Aigio – Ilion - Athens

France

Montcuq

Romania

Busteni

Italy

Merlara

A m e r i c a (4)

Brazil

Rio de Janeiro Méier - Santarém

Argentina

Chivilcoy













Colombia

Guarne

A f r i c a (2)


Tunisia

Bizerte - Mohammedia

Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Aigio	Greece	1st High School of Aigio	38.252	22.079
	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
	Chivilcoy	Argentina	Parque Cielos del Sur	-34.911	-60.014
	Guarne	Colombia	Grupo Astrofanáticos	6.274	-76.522
	Ilion	Greece	11th Junior High School of Ilion	38.033	23.697
	Méier	Brazil	Escola Municipal Bento Ribeiro	-22.904	-43.280
	Merlara	Italy	Lower Secondary School "Dante Alighieri"	45.166	11.445
	Mohammedia	Tunisia	Lycée M'hamdia	36.678	10.152
	Montcuq	France	Fondation La main à la pâte	44.340	1.210
	Santarém	Brazil	Santarém Adventist College	-2.439	-54.699

Aigio, Greece



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

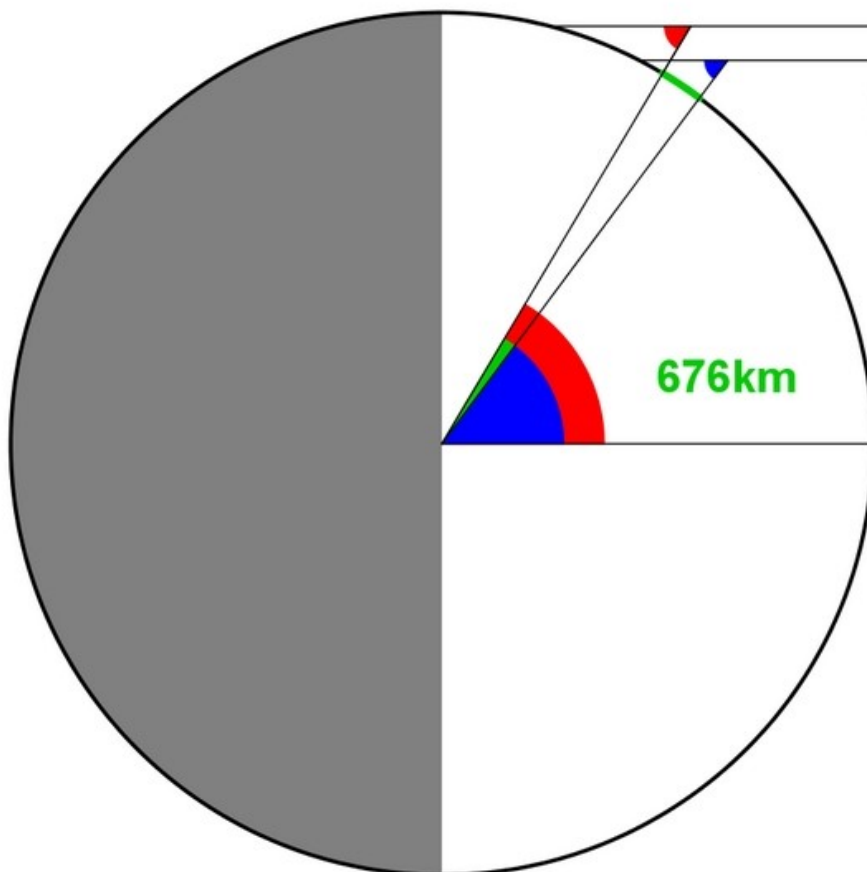
Date	Gnomon	Shadow	Angle
03 November 2021	30.0cm	40.2cm	53.3°

03/11/2021 (Montcuq-France) Latitude: 44.34°

03/11/2021 (Aigio-Greece) Latitude: 38.252°

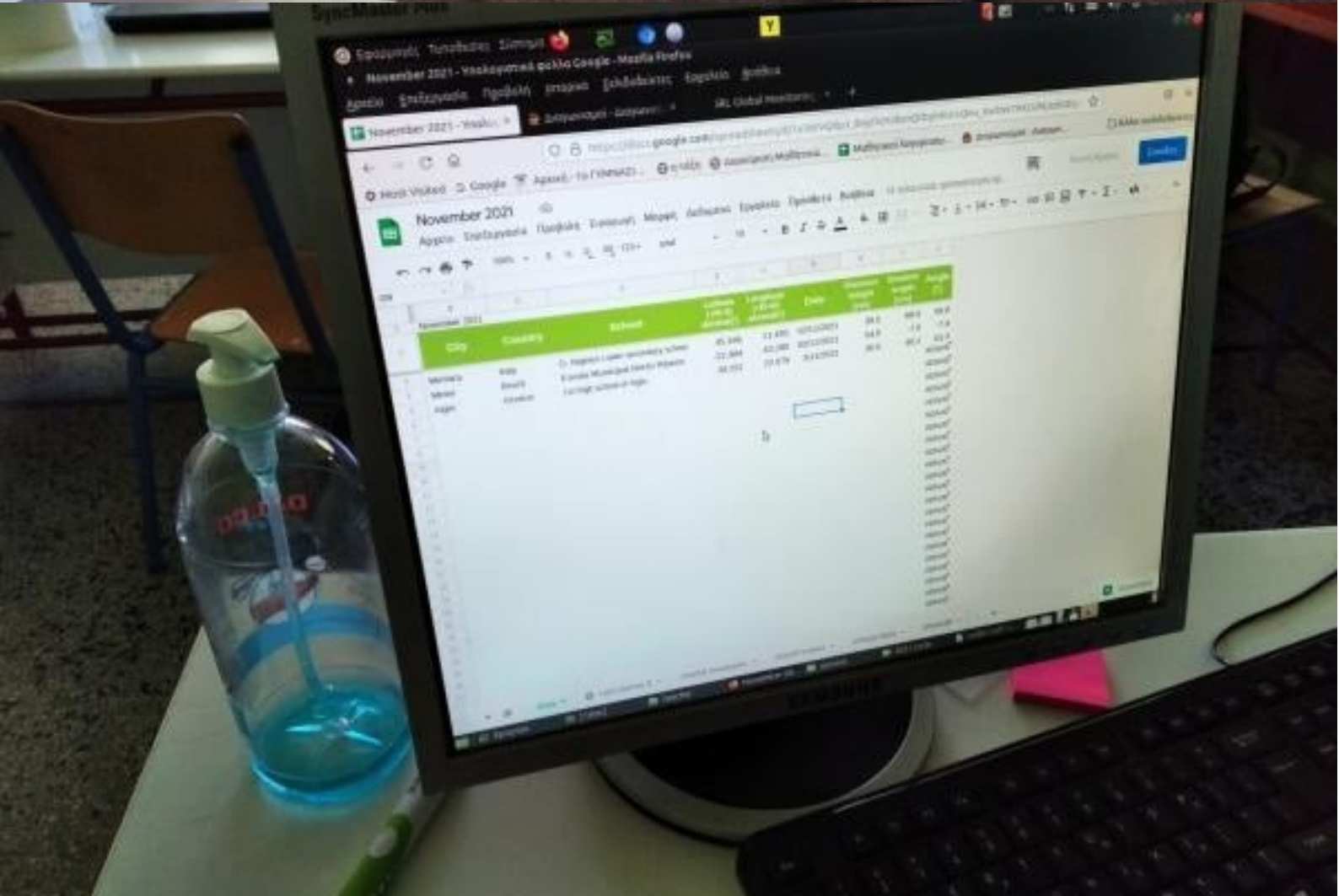
 **59.2° Montcuq**

 **53.3° Aigio**



$$\text{circumference} = \frac{360^\circ \times 676\text{km}}{59.2^\circ - 53.3^\circ} = 41247 \text{ km}$$

Distance	Angle
circumference	360°
676km	59.2° - 53.3°



Athens, Greece



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

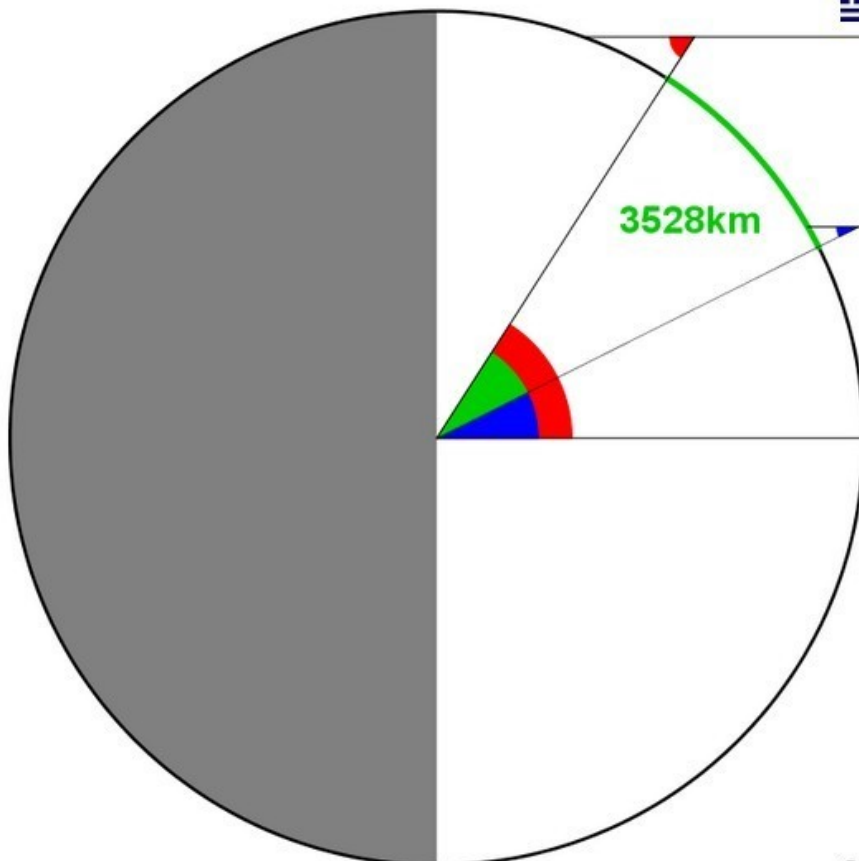
Date	Gnomon	Shadow	Angle
22 November 2021	13.5cm	21.0cm	57.3°

22/11/2021 (Athens-Greece) Latitude: 38.027°

22/11/2021 (Guarne-Colombia) Latitude: 6.274°

 57.3° Athens

 26.6° Guarne



Distance	Angle
circumference	360°
3528km	57.3° - 26.6°

$$\text{circumference} = \frac{360^\circ \times 3528\text{km}}{57.3^\circ - 26.6^\circ} = 41371 \text{ km}$$



Bizerte, Tunisia

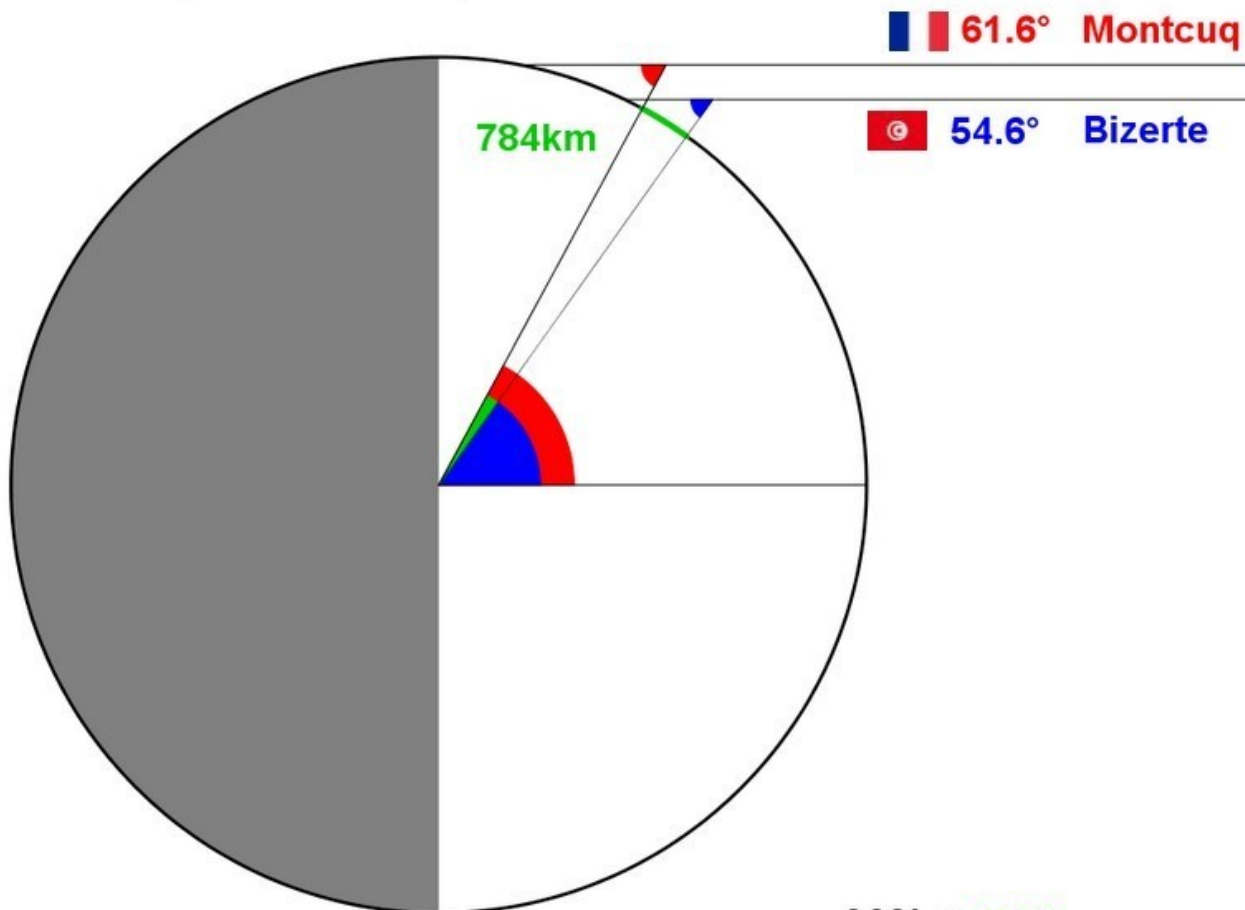


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Bizerte	Tunisia	Ecole Primaire Raouabi	37.284	9.868

Date	Gnomon	Shadow	Angle
10 November 2021	49.0cm	71.0cm	55.4°
11 November 2021	22.0cm	31.0cm	54.6°
17 November 2021	49.0cm	76.0cm	57.2°
20 November 2021	49.0cm	79.0cm	58.2°
24 November 2021	49.0cm	80.5cm	58.7°

11/11/2021 (Montcuq-France) Latitude: 44.34°

11/11/2021 (Bizerte-Tunisia) Latitude: 37.284°



Distance	Angle
circumference	360°
784km	61.6° - 54.6°

$$\text{circumference} = \frac{360^\circ \times 784\text{km}}{61.6^\circ - 54.6^\circ} = 40320 \text{ km}$$



Busteni, Romania

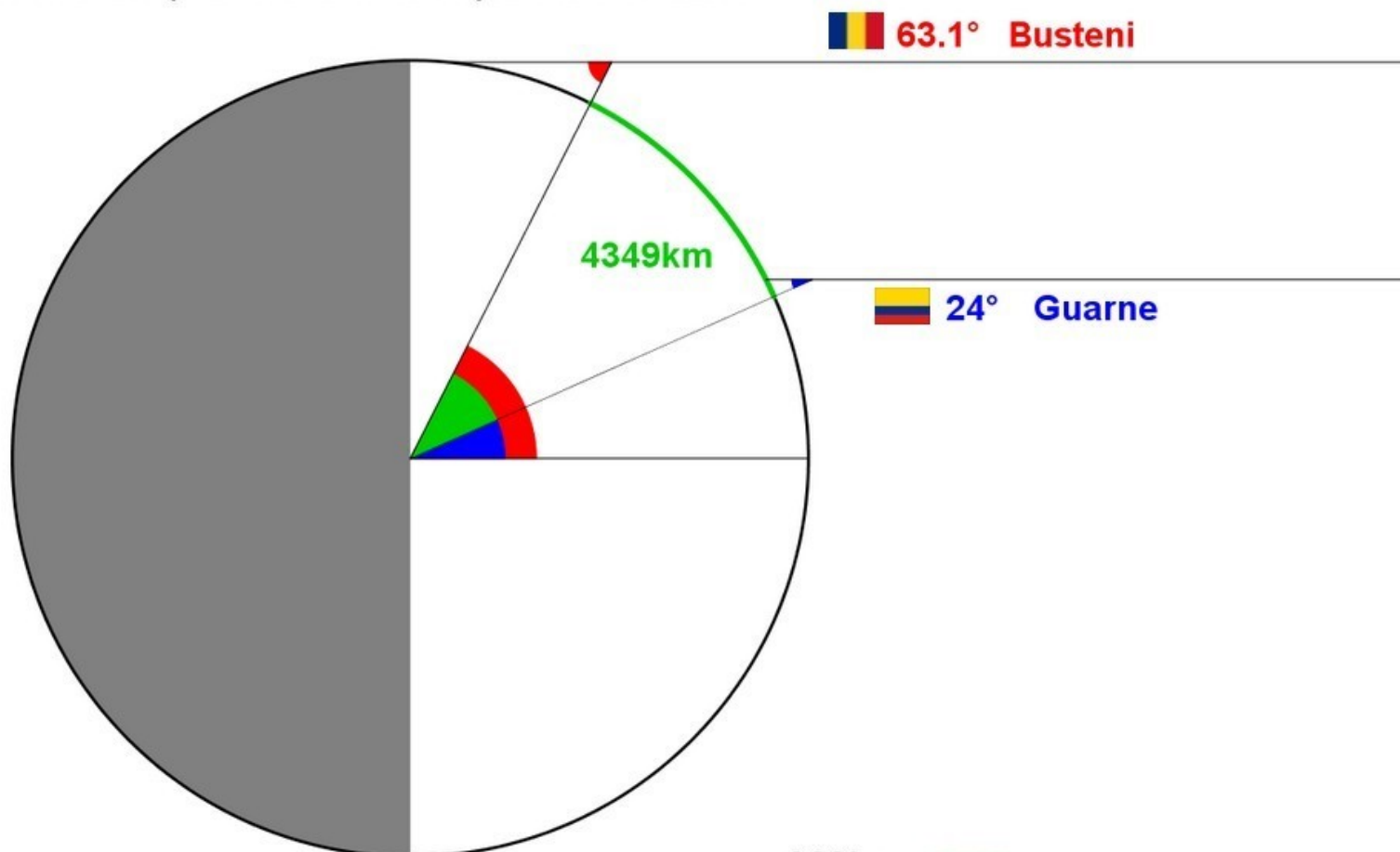


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535

Date	Gnomon	Shadow	Angle
03 November 2021	47.4cm	85.0cm	60.9°
03 November 2021	47.4cm	85.0cm	60.9°
11 November 2021	50.0cm	98.6cm	63.1°
17 November 2021	50.0cm	105.3cm	64.6°
19 November 2021	50cm	107.4cm	65.0°
23 November 2021	50cm	111.7cm	65.9°
25 November 2021	50.0cm	113.7cm	66.3°
27 November 2021	50.0cm	115.6cm	66.6°

11/11/2021 (Busteni-Romania) Latitude: 45.416°

11/11/2021 (Guarne-Colombia) Latitude: 6.274°




Distance	Angle
circumference	360°
4349km	63.1° - 24°

$$\text{circumference} = \frac{360^\circ \times 4349\text{km}}{63.1^\circ - 24^\circ} = 40042 \text{ km}$$



Chivilcoy, Argentina

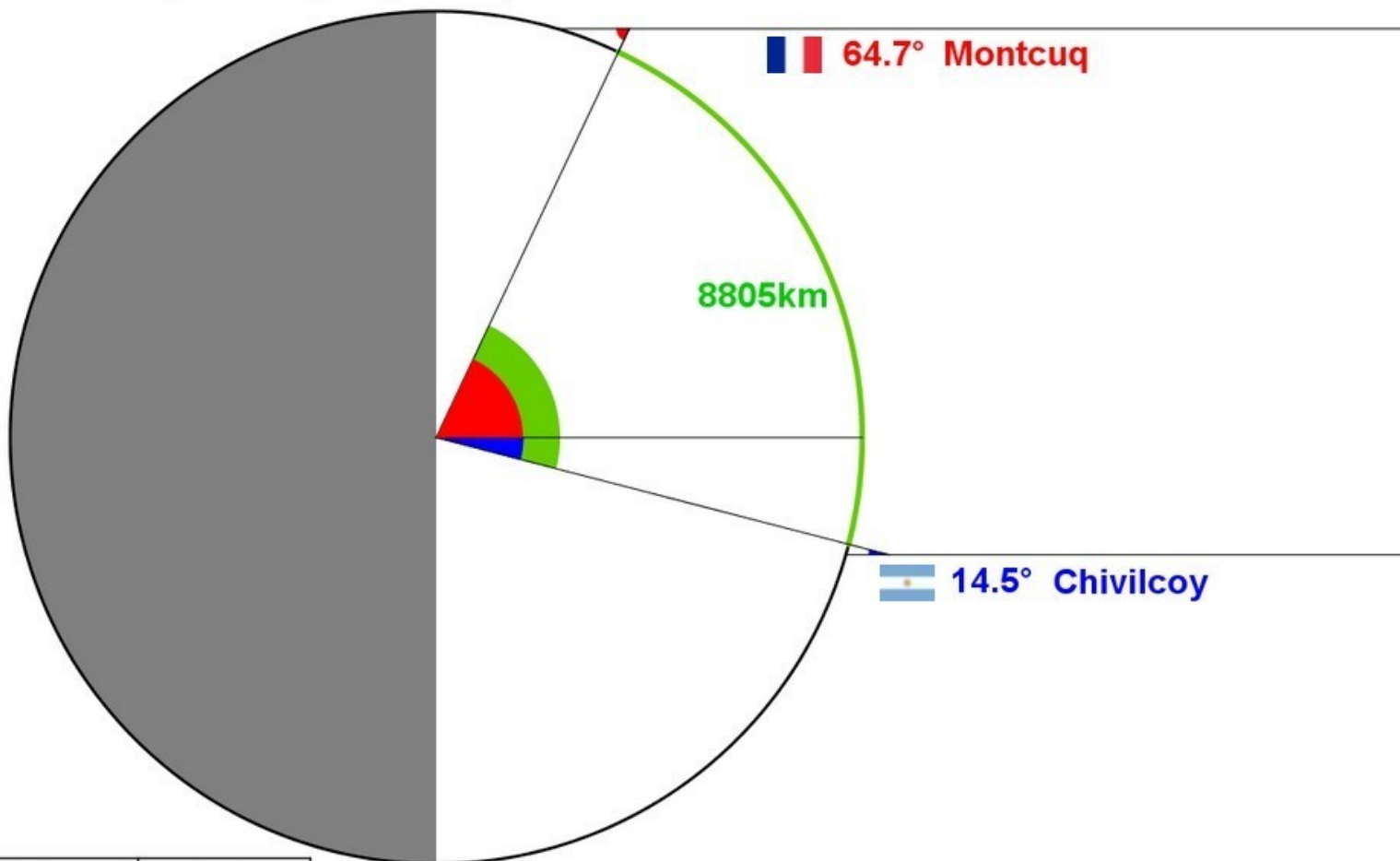


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Chivilcoy	Argentina	Parque Cielos del Sur	-34.911	-60.014

Date	Gnomon	Shadow	Angle
08 November 2021	12.0cm	-3.9cm	-18.0°
13 November 2021	12.0cm	-3.6cm	-16.7°
15 November 2021	12.0cm	-3.5cm	-16.3°
17 November 2021	12.0cm	-3.4cm	-15.8°
19 November 2021	12.0cm	-3.3cm	-15.4°
23 November 2021	12cm	-3.1cm	-14.5°

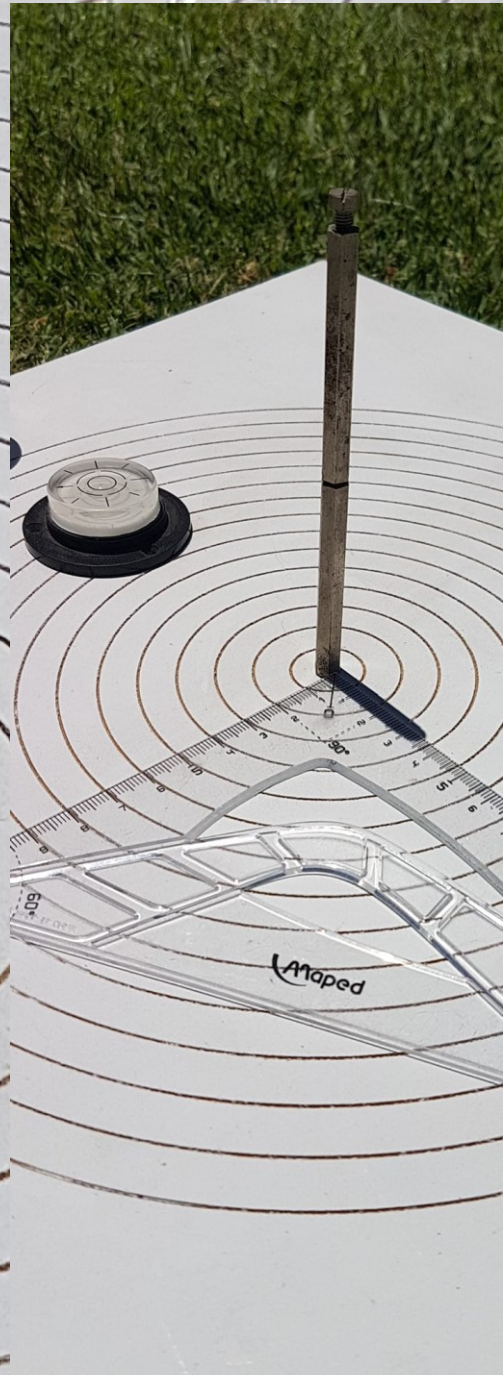
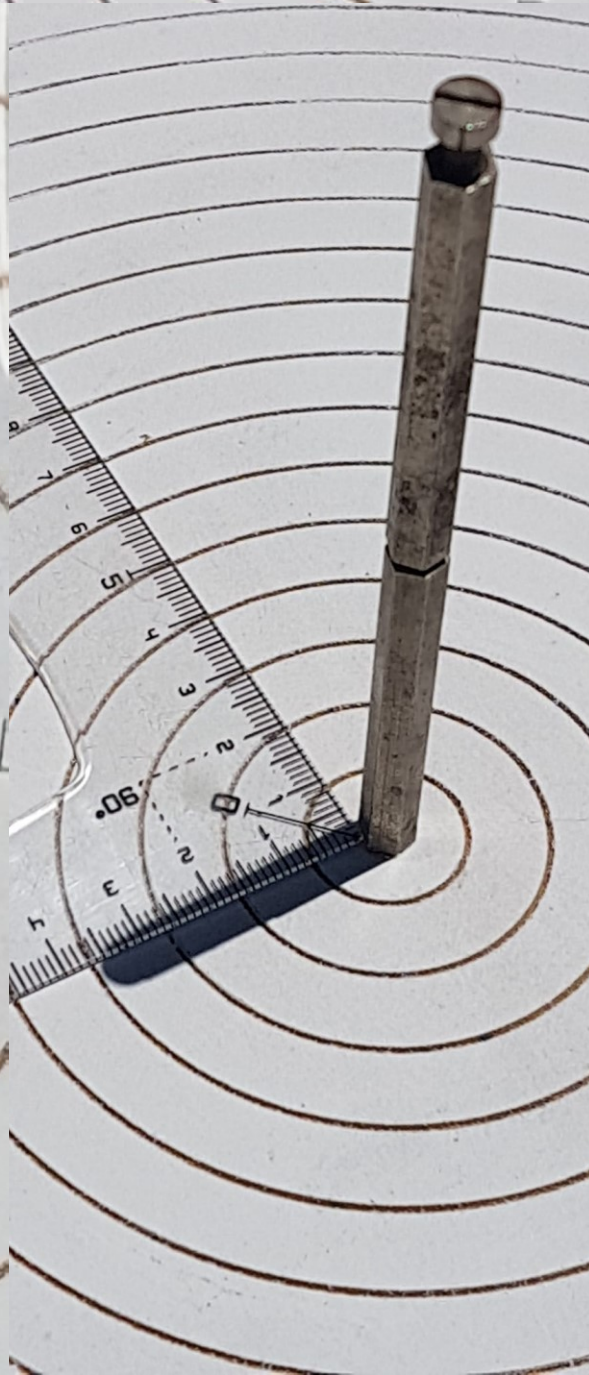
23/11/2021 (Montcuq-France) Latitude: 44.34°

23/11/2021 (Chivilcoy-Argentina) Latitude: -34.911°



Distance	Angle
circumference	360°
8805km	64.7° + 14.5°

$$\text{circumference} = \frac{360^\circ \times 8805\text{km}}{64.7^\circ + 14.5^\circ} = 40023 \text{ km}$$



Guarne, Colombia

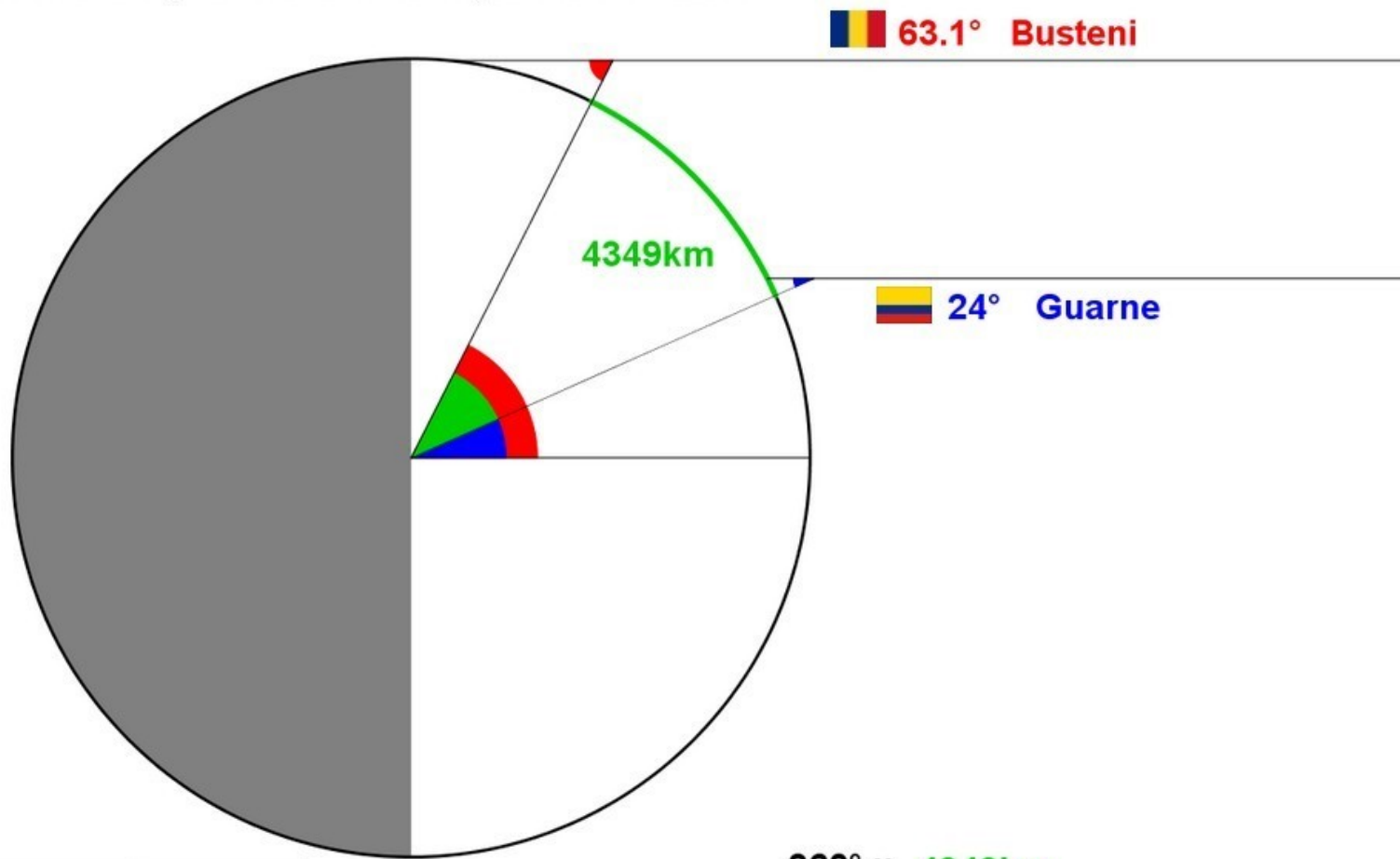


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Guarne	Colombia	Grupo Astrofanáticos	6.274	-76.522

Date	Gnomon	Shadow	Angle
11 November 2021	7.4cm	3.3cm	24.0°
22 November 2021	7.4cm	3.7cm	26.6°

11/11/2021 (Busteni-Romania) Latitude: 45.416°

11/11/2021 (Guarne-Colombia) Latitude: 6.274°



Distance	Angle
circumference	360°
4349km	63.1° - 24°

$$\text{circumference} = \frac{360^\circ \times 4349\text{km}}{63.1^\circ - 24^\circ} = 40042 \text{ km}$$



Ilion, Greece

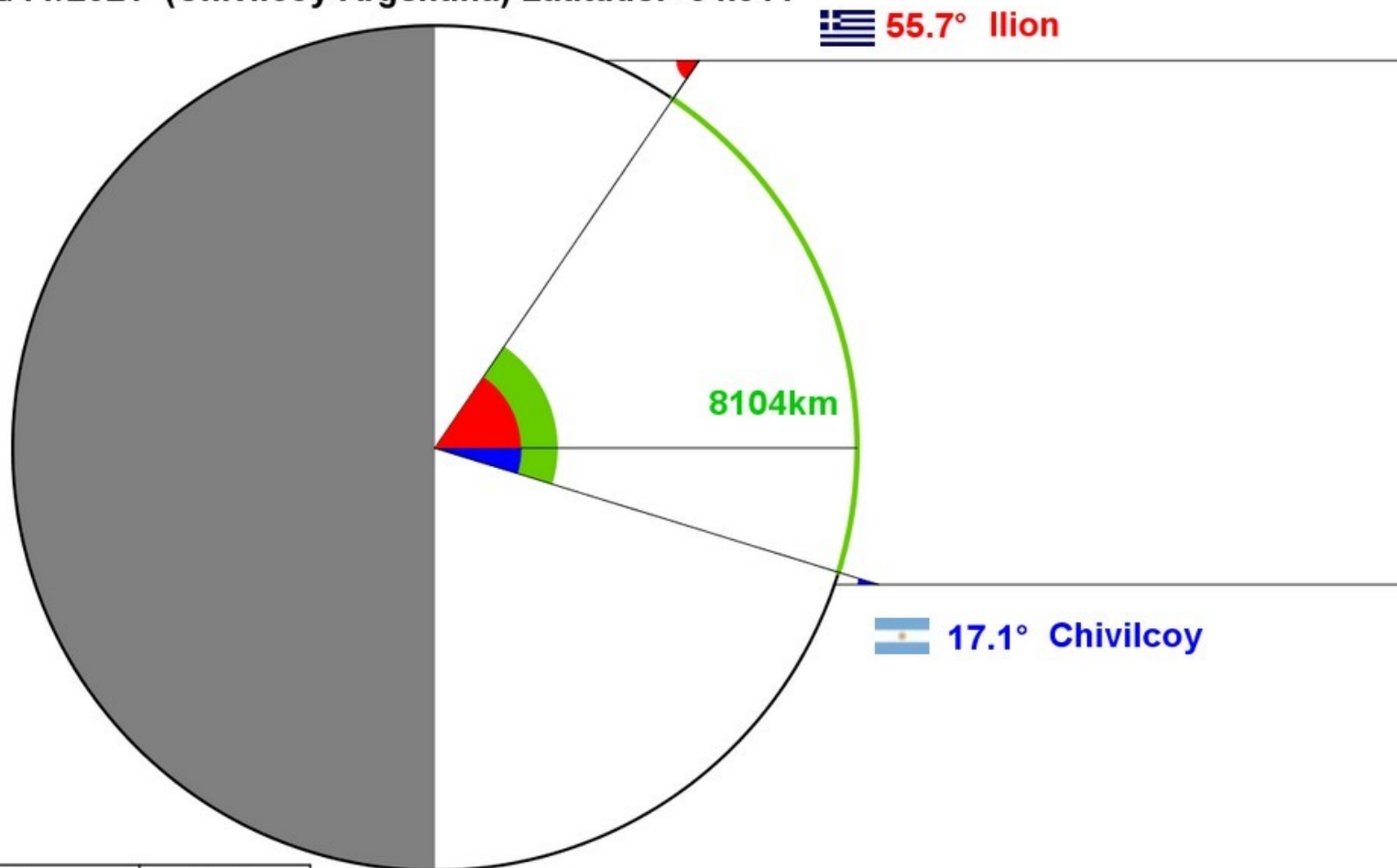


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Ilion	Greece	11th Junior High School of Ilion	38.033	23.697

Date	Gnomon	Shadow	Angle
03 November 2021	100.0cm	134.0cm	53.3°
05 November 2021	24.5cm	33.5cm	53.8°
10 November 2021	40.0cm	58.2cm	55.5°

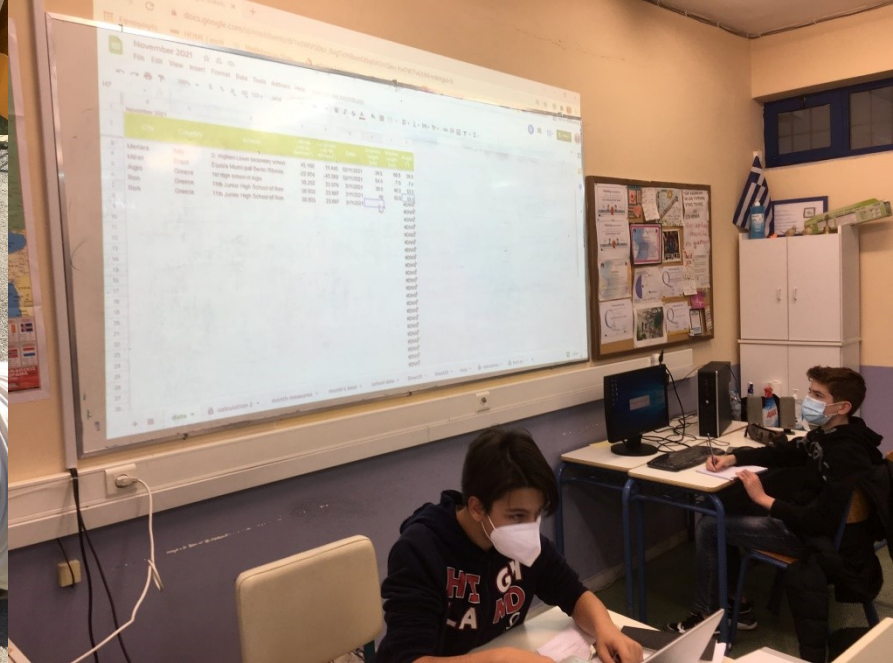
12/11/2021 (Ilion-Greece) Latitude: 38.033°

12/11/2021 (Chivilcoy-Argentina) Latitude: -34.911°




Distance	Angle
circumference	360°
8104km	55.7° + 17.1°

$$\text{circumference} = \frac{360^\circ \times 8104\text{km}}{55.7^\circ + 17.1^\circ} = 40075 \text{ km}$$



Méier, Brazil

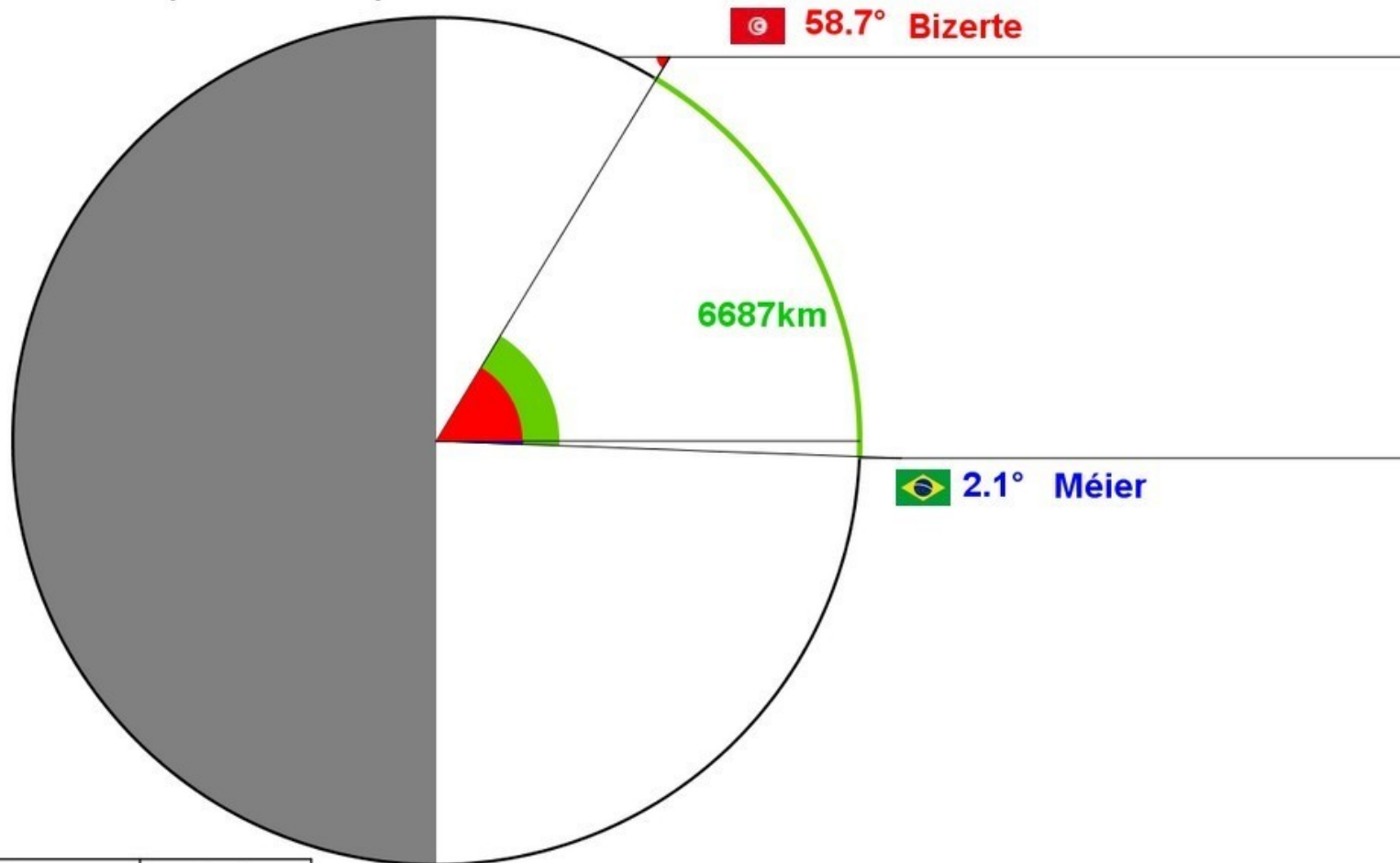


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Méier	Brazil	Escola Municipal Bento Ribeiro	-22.904	-43.280

Date	Gnomon	Shadow	Angle
02 November 2021	54.0cm	-7.0cm	-7.4°
07 November 2021	54.0cm	-8.0cm	-8.4°
15 November 2021	23cm	-3.0cm	-7.4°
17 November 2021	32.0cm	-5.0cm	-8.9°
24 November 2021	54.0cm	-2.0cm	-2.1°

24/11/2021 (Bizerte-Tunisia) Latitude: 37.284°

24/11/2021 (Méier-Brazil) Latitude: -22.904°




Distance	Angle
circumference	360°
6687km	58.7° + 2.1°

$$\text{circumference} = \frac{360^\circ \times 6687\text{km}}{58.7^\circ + 2.1^\circ} = 39594 \text{ km}$$



Mohammedia, Tunisia

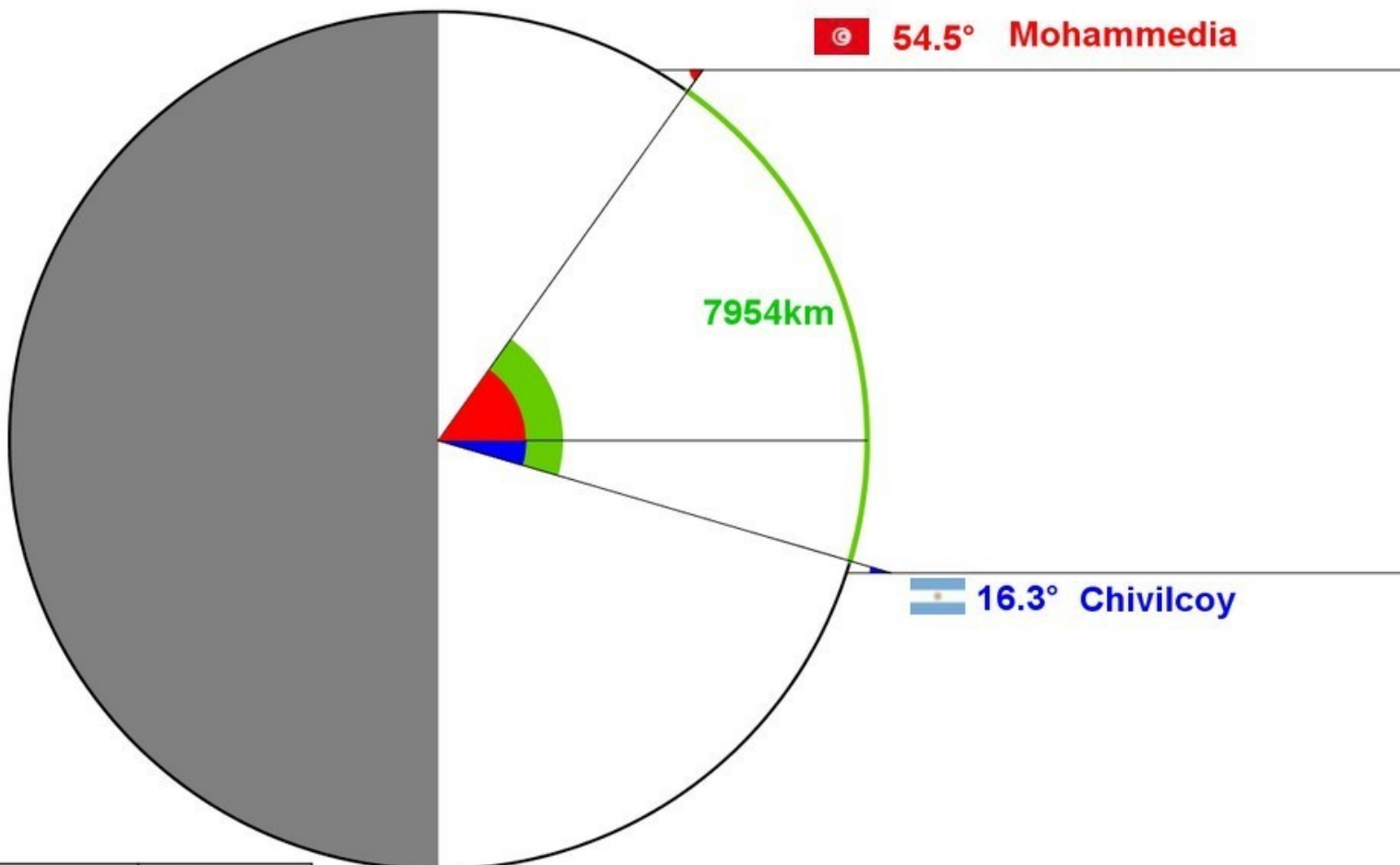


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Mohammedia	Tunisia	Lycée M'hamdia	36.678	10.152

Date	Gnomon	Shadow	Angle
15 November 2021	60cm	84.0cm	54.5°

15/11/2021 (Mohammedia-Tunisia) Latitude: 36.678°

15/11/2021 (Chivilcoy-Argentina) Latitude: -34.911°



Distance	Angle
circumference	360°
7954km	54.5° + 16.3°

$$\text{circumference} = \frac{360^\circ \times 7954\text{km}}{54.5^\circ + 16.3^\circ} = 40444 \text{ km}$$



Merlara, Italy



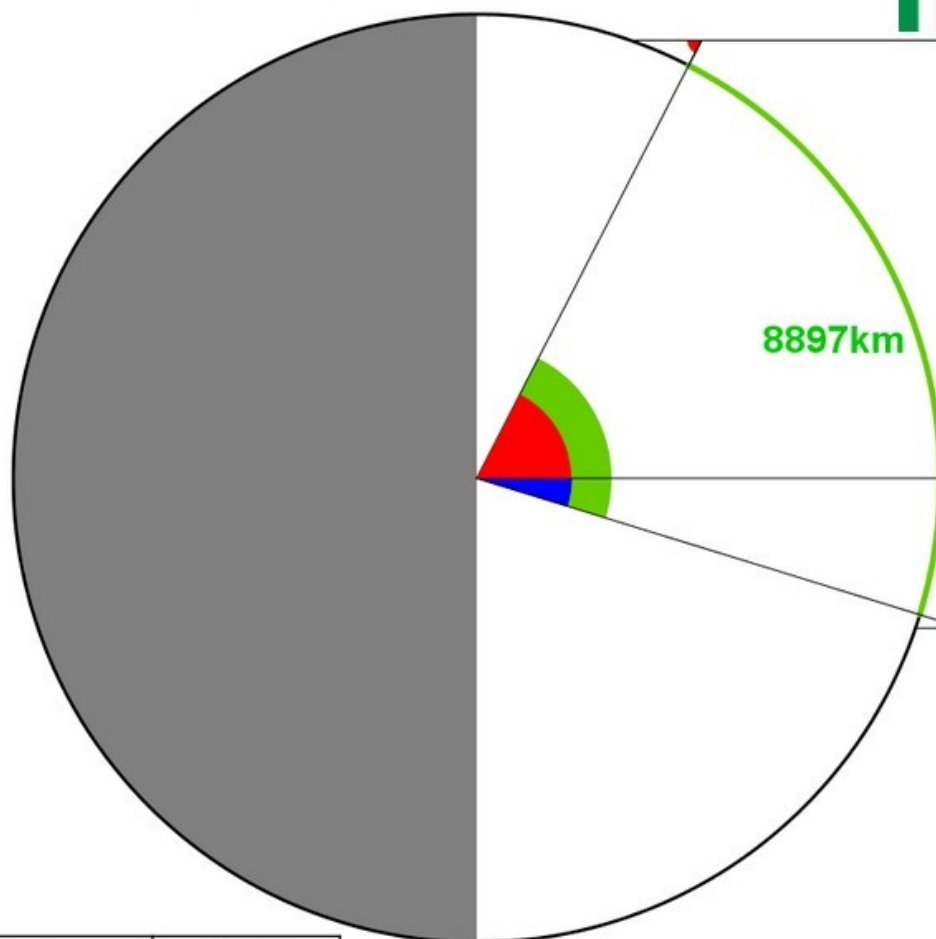
Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Merlara	Italy	Lower Secondary School "Dante Alighieri"	45.166	11.445

Date	Gnomon	Shadow	Angle
02 November 2021	39.5cm	68.0cm	59.8°
23 November 2021	39.5cm	86.0cm	65.3°
30 November 2021	39.5cm	91.0cm	66.5°

12/11/2021 (Merlara-Italy) Latitude: 45.166°

12/11/2021 (Chivilcoy-Argentina) Latitude: -34.911°

 **62.8° Merlara**



 **17.1° Chivilcoy**

Distance	Angle
circumference	360°
8897km	62.8° + 17.1°

$$\text{circumference} = \frac{360^\circ \times 8897\text{km}}{62.8^\circ + 17.1^\circ} = 40087 \text{ km}$$



Montcuq, France

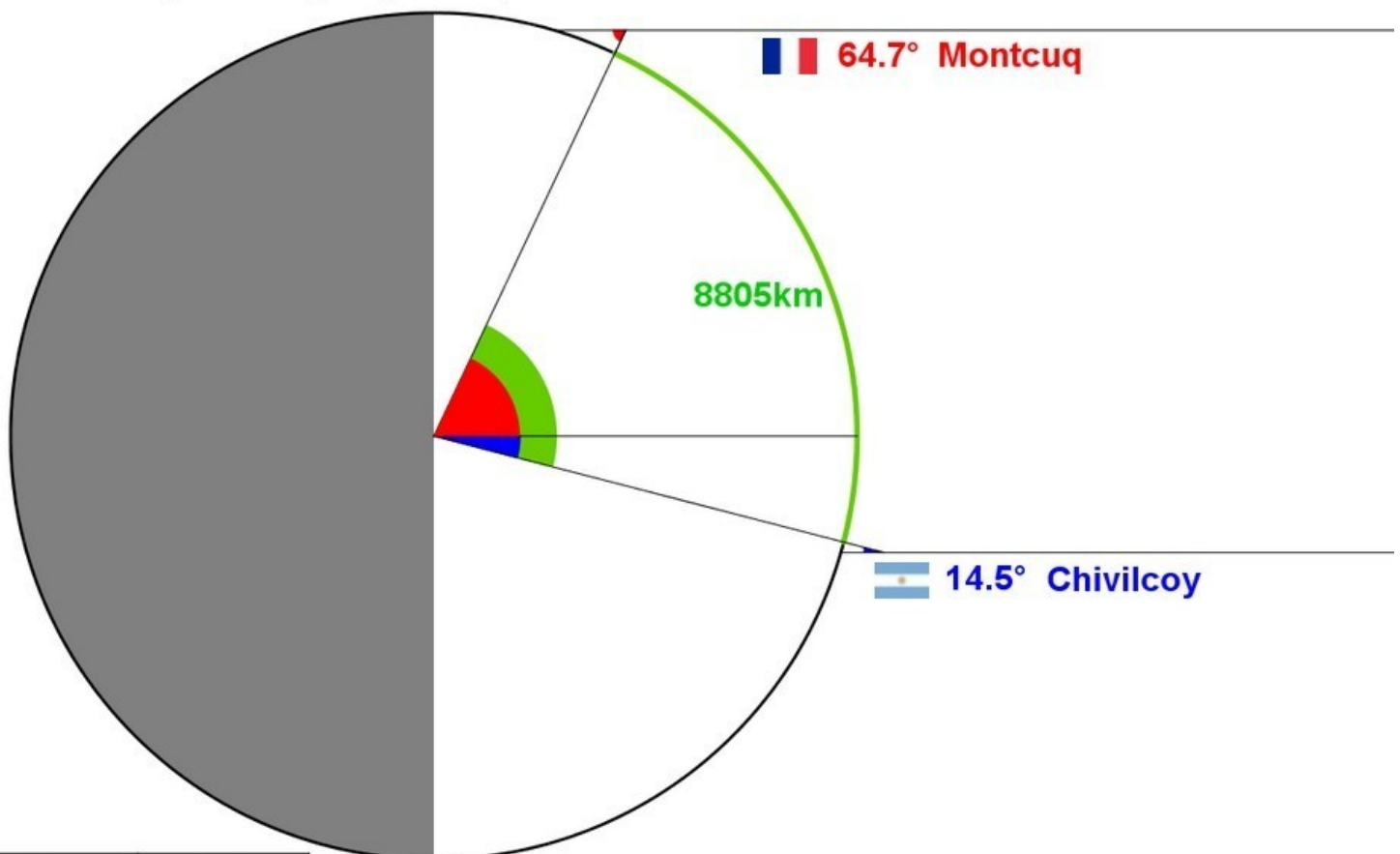


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Montcuq	France	Fondation La main à la pâte	44.340	1.210

Date	Gnomon	Shadow	Angle
03 November 2021	25.0cm	42.0cm	59.2°
06 November 2021	25.0cm	44.0cm	60.4°
08 November 2021	25.0cm	44.5cm	60.7°
09 November 2021	25.0cm	45.3cm	61.1°
10 November 2021	25.0cm	46.2cm	61.6°
11 November 2021	25.0cm	46.3cm	61.6°
15 November 2021	25.0cm	49.0cm	63.0°
19 November 2021	25cm	51.0cm	63.9°
20 November 2021	25cm	51.5cm	64.1°
21 November 2021	25.0cm	52.0cm	64.3°
23 November 2021	25.0cm	53.0cm	64.7°
25 November 2021	20.0cm	43.0cm	65.1°
27 November 2021	20.0cm	44.0cm	65.6°
28 November 2021	20.0cm	44.5cm	65.8°
30 November 2021	20.0cm	45.0cm	66.0°

23/11/2021 (Montcuq-France) Latitude: 44.34°

23/11/2021 (Chivilcoy-Argentina) Latitude: -34.911°




Distance	Angle
circumference	360°
8805km	64.7° + 14.5°

$$\text{circumference} = \frac{360^\circ \times 8805\text{km}}{64.7^\circ + 14.5^\circ} = 40023 \text{ km}$$



Santarém, Brazil

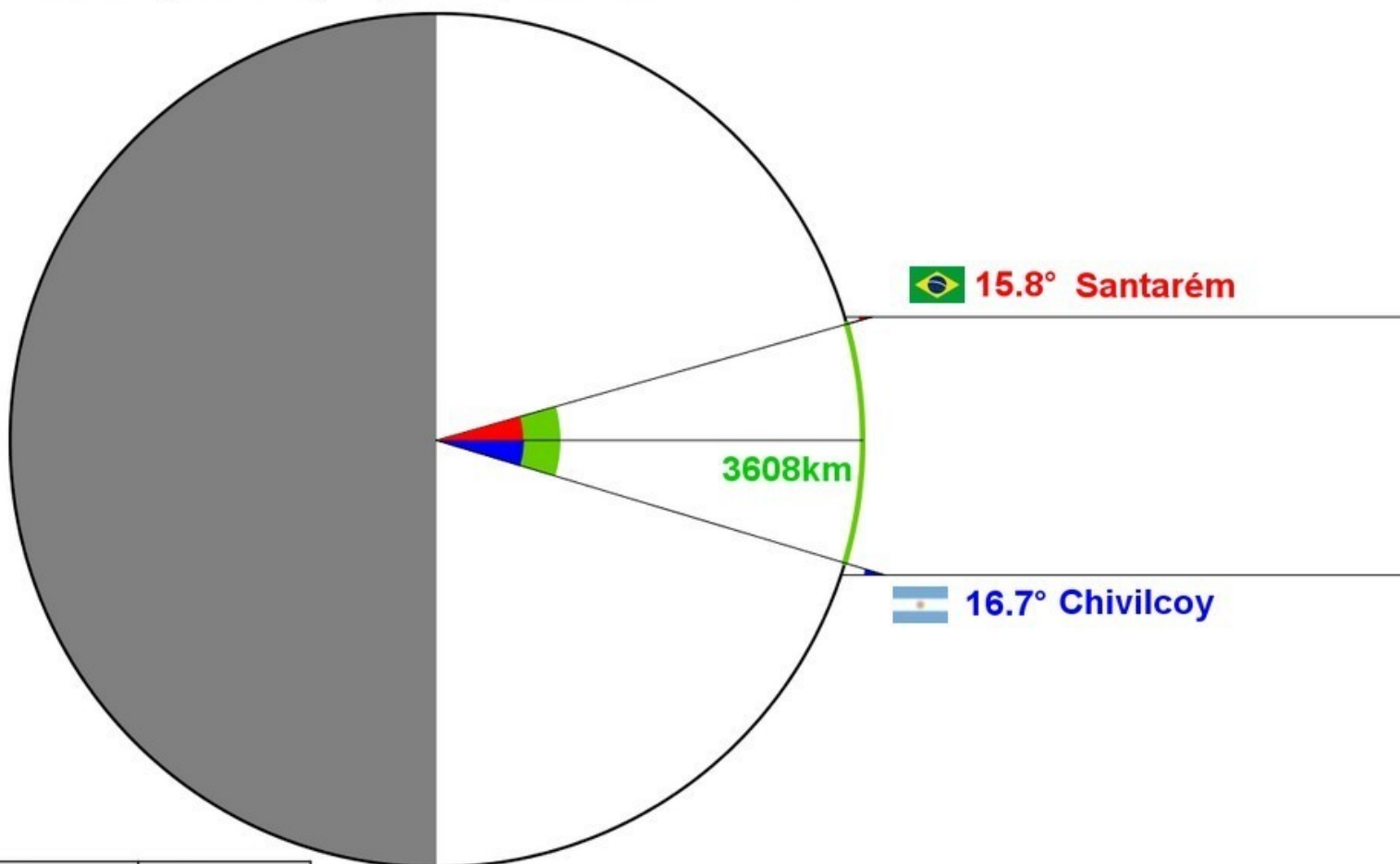


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Santarém	Brazil	Santarém Adventist College	-2.439	-54.699

Date	Gnomon	Shadow	Angle
07 November 2021	10.0cm	2.2cm	12.4°
13 November 2021	19.5cm	5.5cm	15.8°
27 November 2021	10.0cm	2.8cm	15.6°

13/11/2021 (Santarém-Brazil) Latitude: -2.439°

13/11/2021 (Chivilcoy-Argentina) Latitude: -34.911°



Distance	Angle
circumference	360°
3608km	15.8° + 16.7°

$$\text{circumference} = \frac{360^\circ \times 3608\text{km}}{15.8^\circ + 16.7^\circ} = 39966 \text{ km}$$



