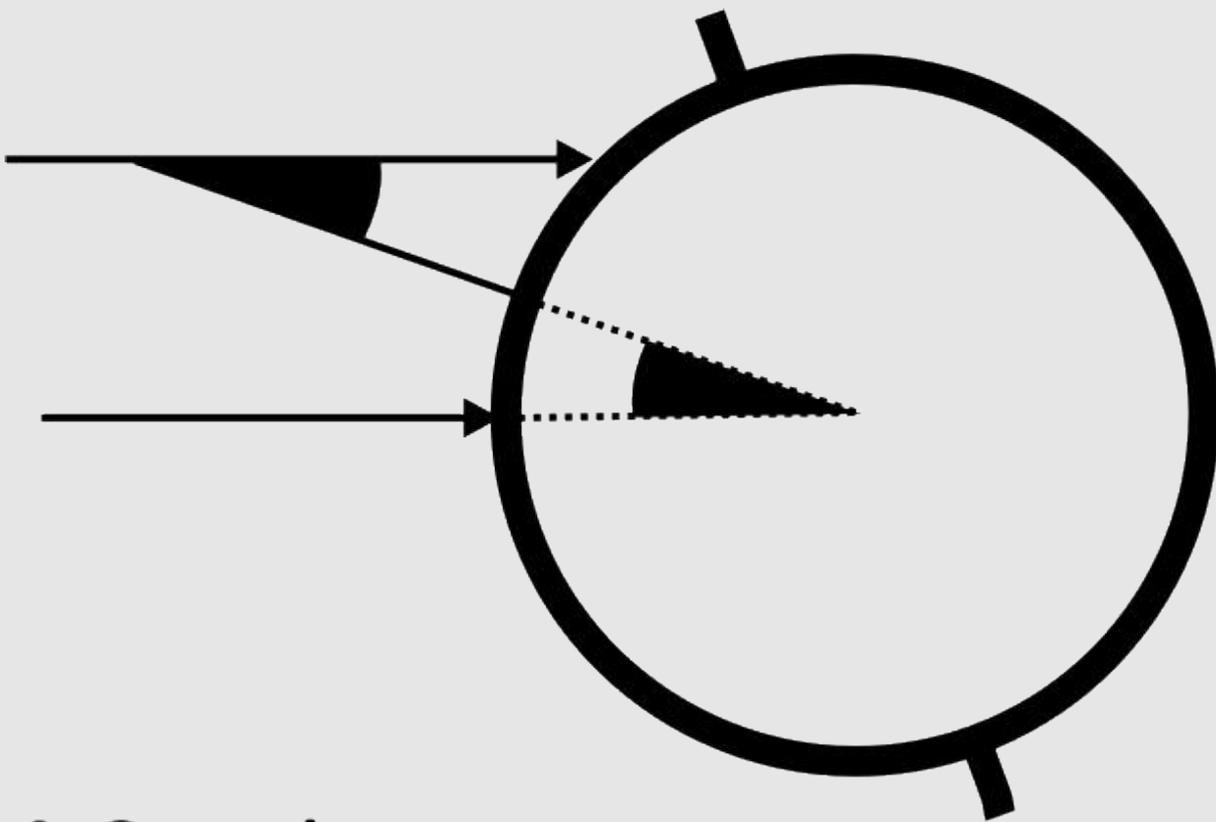


Eratosthenes

September 2015 Equinox experiments



4 Continents

17 Countries

38 Schools

99 Measurements

Greece

11 Schools
31 Measurements

Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Aigio	Greece	1st Gimnasium of Aigio	38.252	22.079
	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
	Grevena	Greece	2nd primary of Grevena	40.086	21.424
	Ioannina	Greece	Experimental College	39.666	20.845
	Kavala	Greece	3rd Junior High School of Kavala	40.938	24.402
	Kozani	Greece	Junior High School of Krokos	40.265	21.815
	Pastida	Greece	Primary School of Pastida	36.385	28.138
	Petroupoli	Greece	4o Junior High School	38.036	23.674
	Lardos	Greece	Primary School of Lardos	36.093	28.012

Aigio, Greece

September 2015

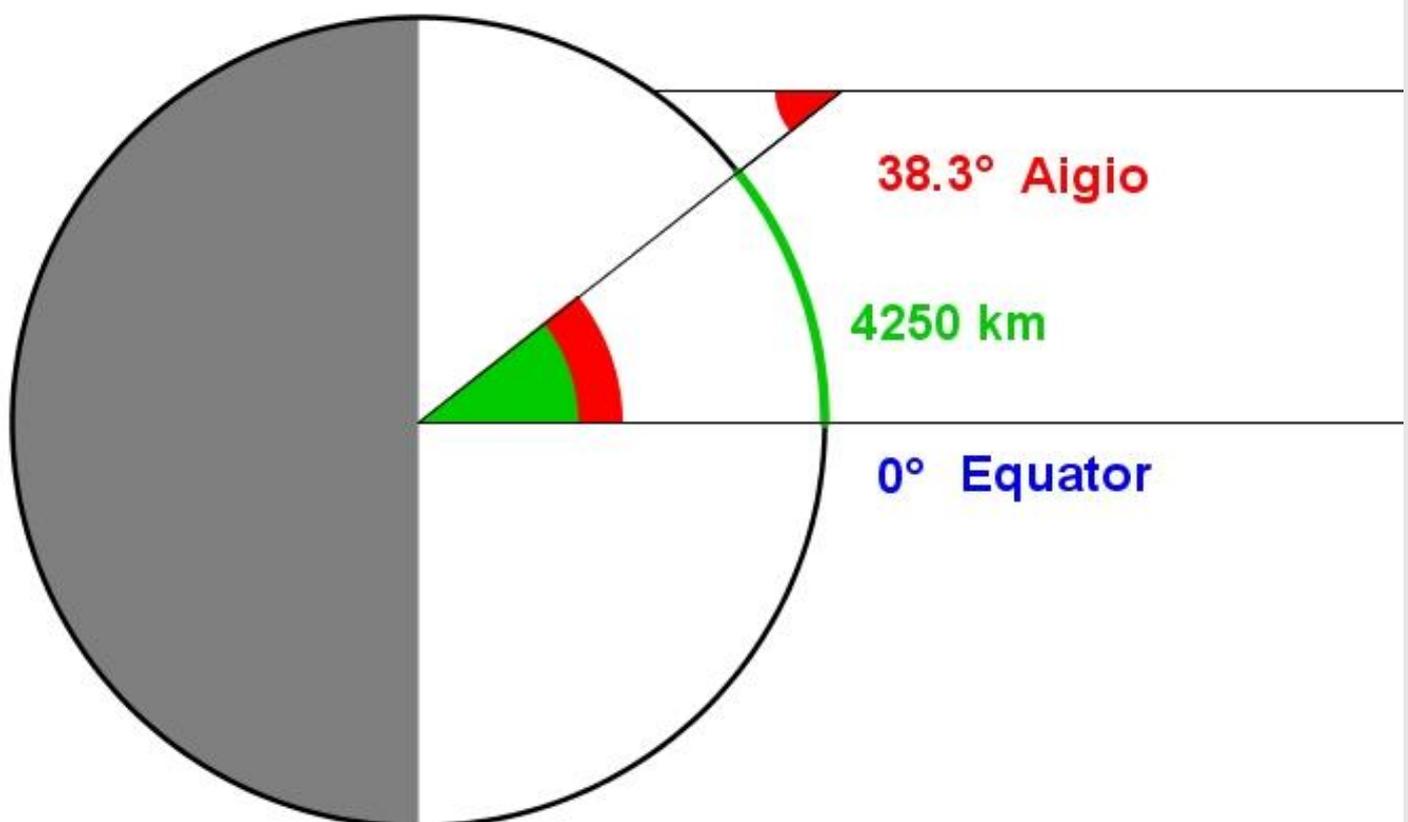


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Aigio	Greece	1st Gimnasium of Aigio	38.252	22.079

Date	Gnomon	Shadow	Angle
September 22	86 cm	66.9 cm	37.9 °
September 23	86 cm	68 cm	38.3 °

23 september 2015 (Aigio-GREECE) Latitude: 38.25°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4250 \text{ km}}{38.3^\circ - 0^\circ} = 39948 \text{ km}$$

Athens - Agion Anargyron pro, Greece

September 2015

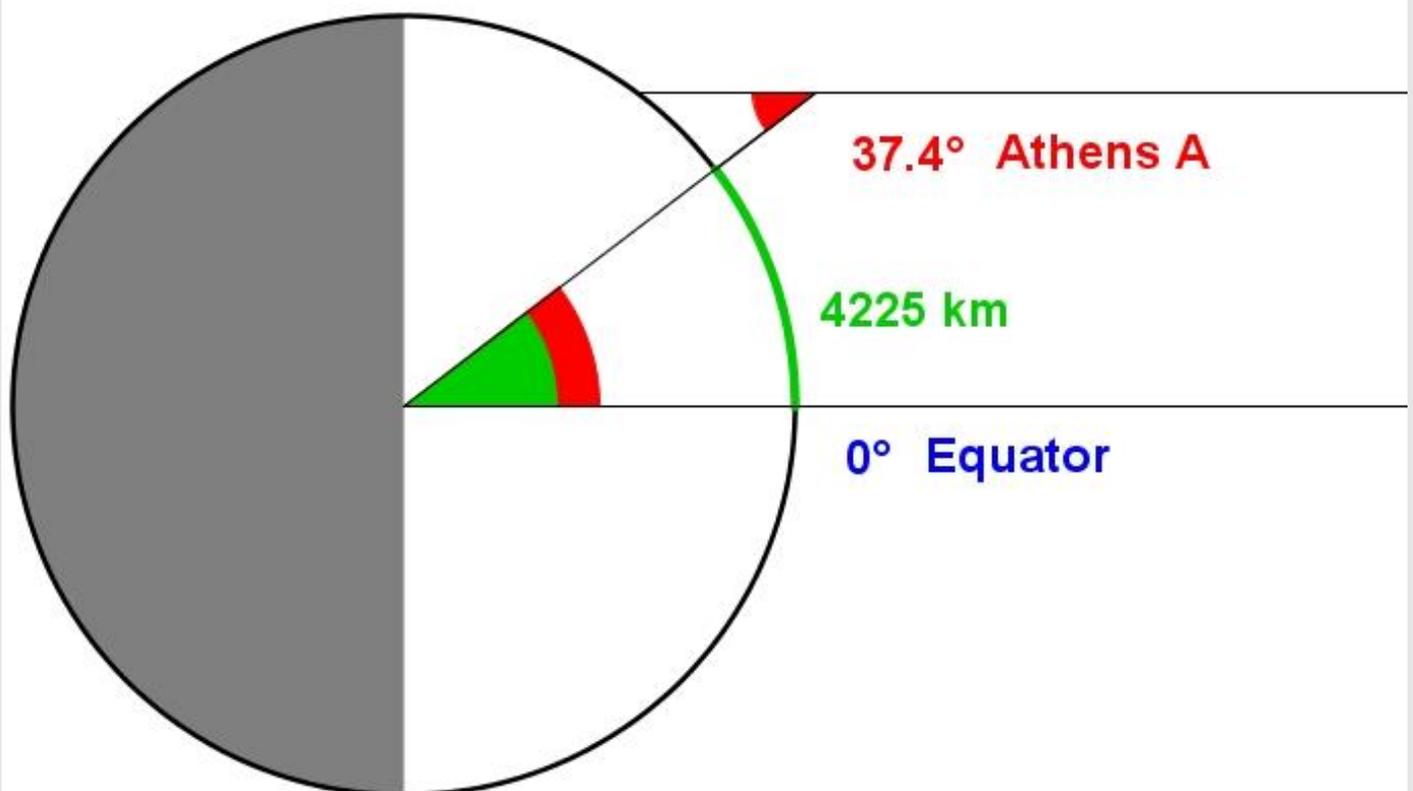


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Athens	Greece	Experimental College Agion Anargyron	38.027	23.726

Date	Gnomon	Shadow	Angle
September 08	49 cm	32.2 cm	33.3 °
September 09	49 cm	31.3 cm	32.6 °
September 11	49 cm	32.3 cm	33.4 °
September 23	49 cm	37.5 cm	37.4 °

23 september 2015 (Athens A-GREECE) Latitude: 38.03°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4225 \text{ km}}{37.4^\circ - 0^\circ} = 40668 \text{ km}$$

Athens - Ilion, Greece

September 2015

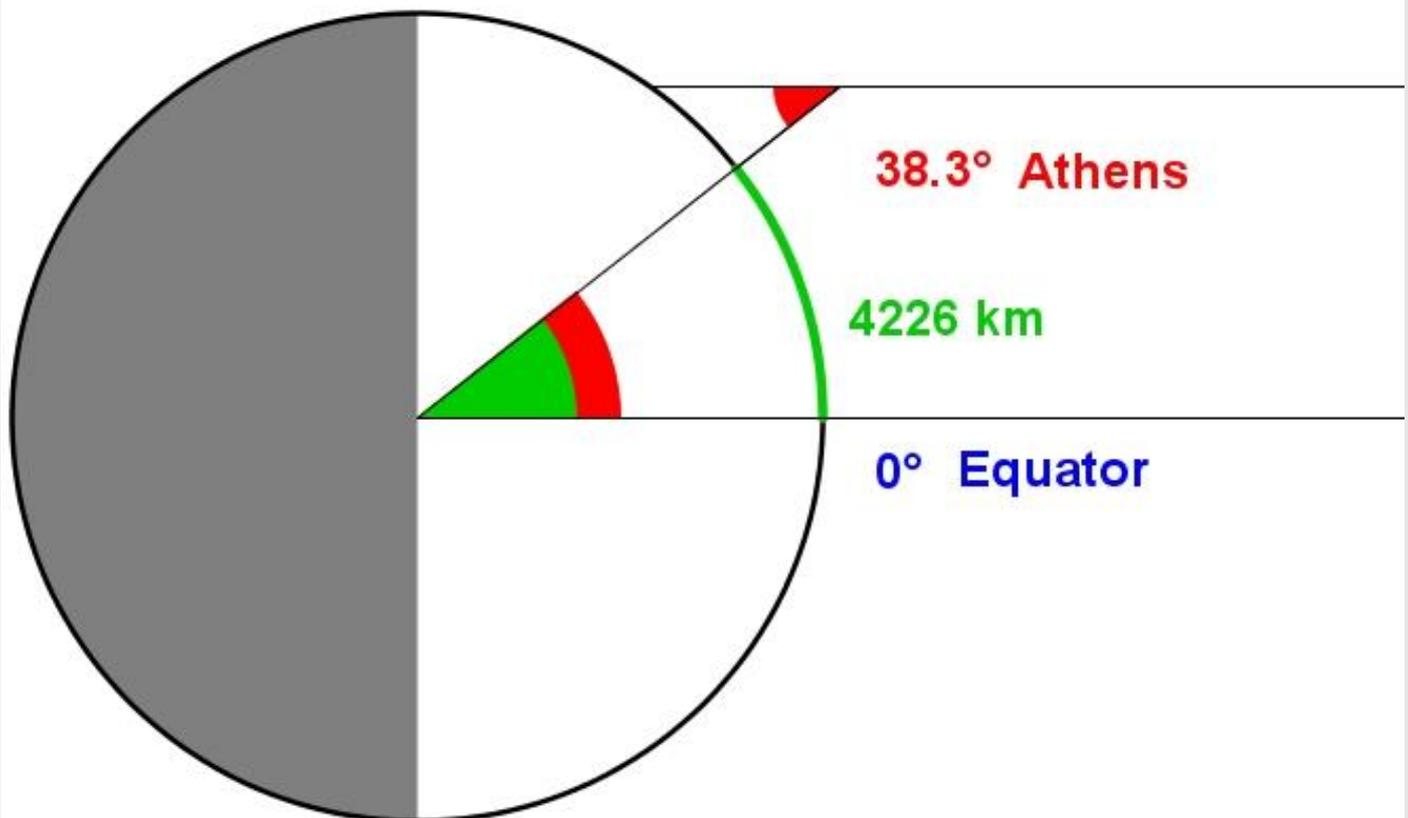


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Athens	Greece	3rd Junior High School of Ilion	38.037	23.712

Date	Gnomon	Shadow	Angle
September 23	100 cm	79 cm	38.3 °

23 september 2015 (Athens-GREECE) Latitude: 38.04°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4226 \text{ km}}{38.3^\circ - 0^\circ} = 39722 \text{ km}$$

Chania, Greece

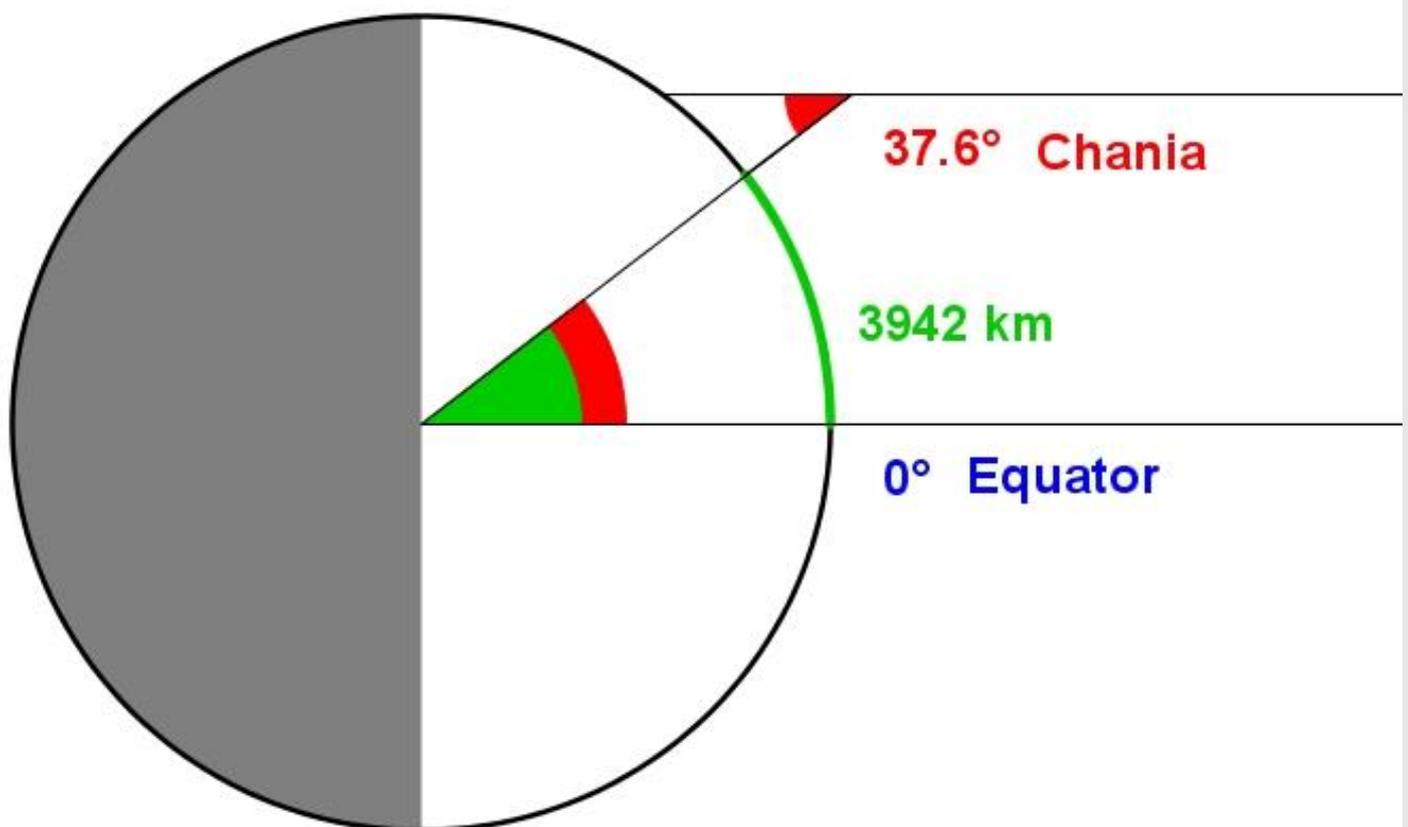
September 2015



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

Date	Gnomon	Shadow	Angle
September 23	100 cm	77 cm	37.6 °

23 september 2015 (Chania-GREECE) Latitude: 35.49°
23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 3942 \text{ km}}{37.6^\circ - 0^\circ} = 37743 \text{ km}$$

Grevena, Greece

September 2015

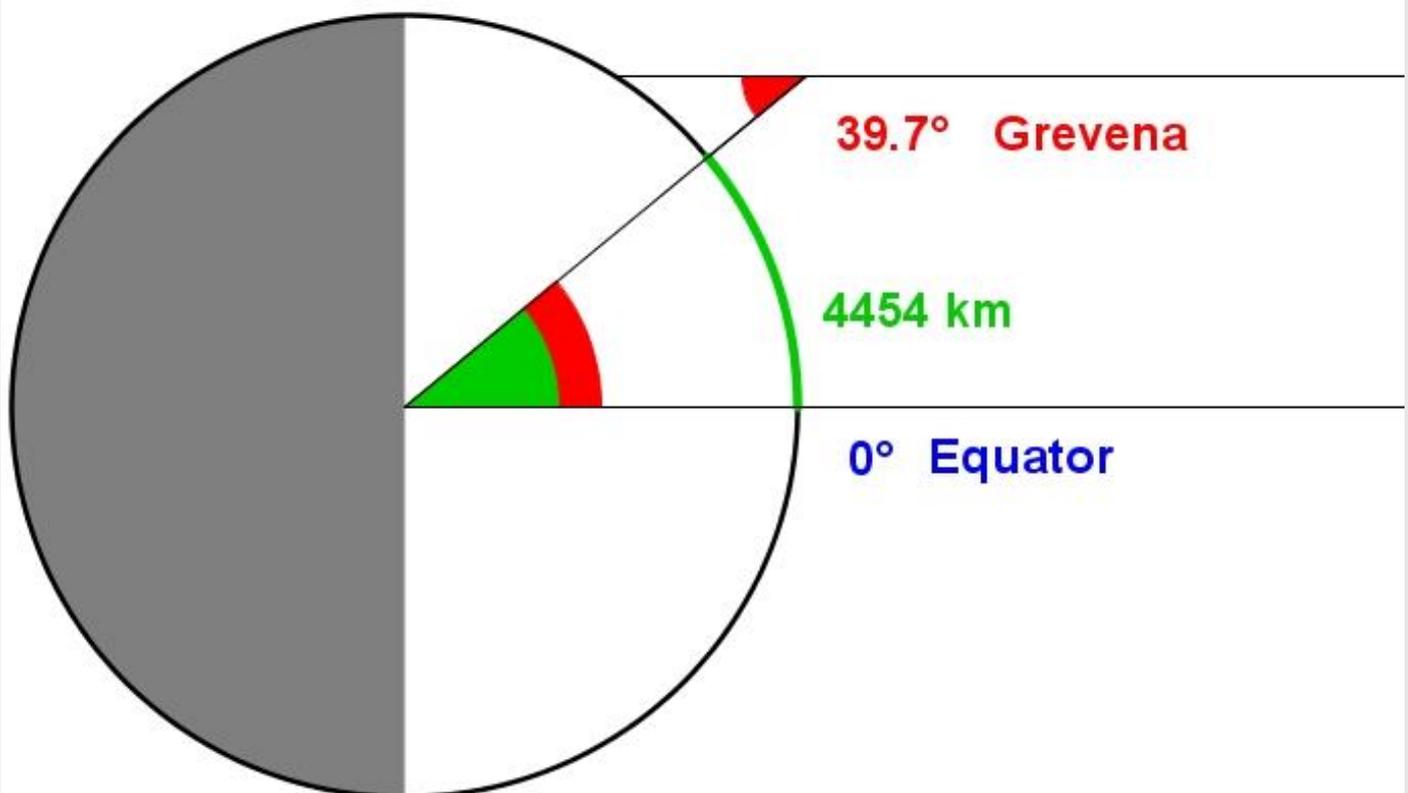


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Grevena	Greece	2nd primary of Grevena	40.086	21.424

Date	Gnomon	Shadow	Angle
September 23	100 cm	83 cm	39.7 °

23 september 2015 (Grevena-GREECE) Latitude: 40.09°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4454 \text{ km}}{39.7^\circ - 0^\circ} = 40389 \text{ km}$$

Ioannina, Greece

September 2015

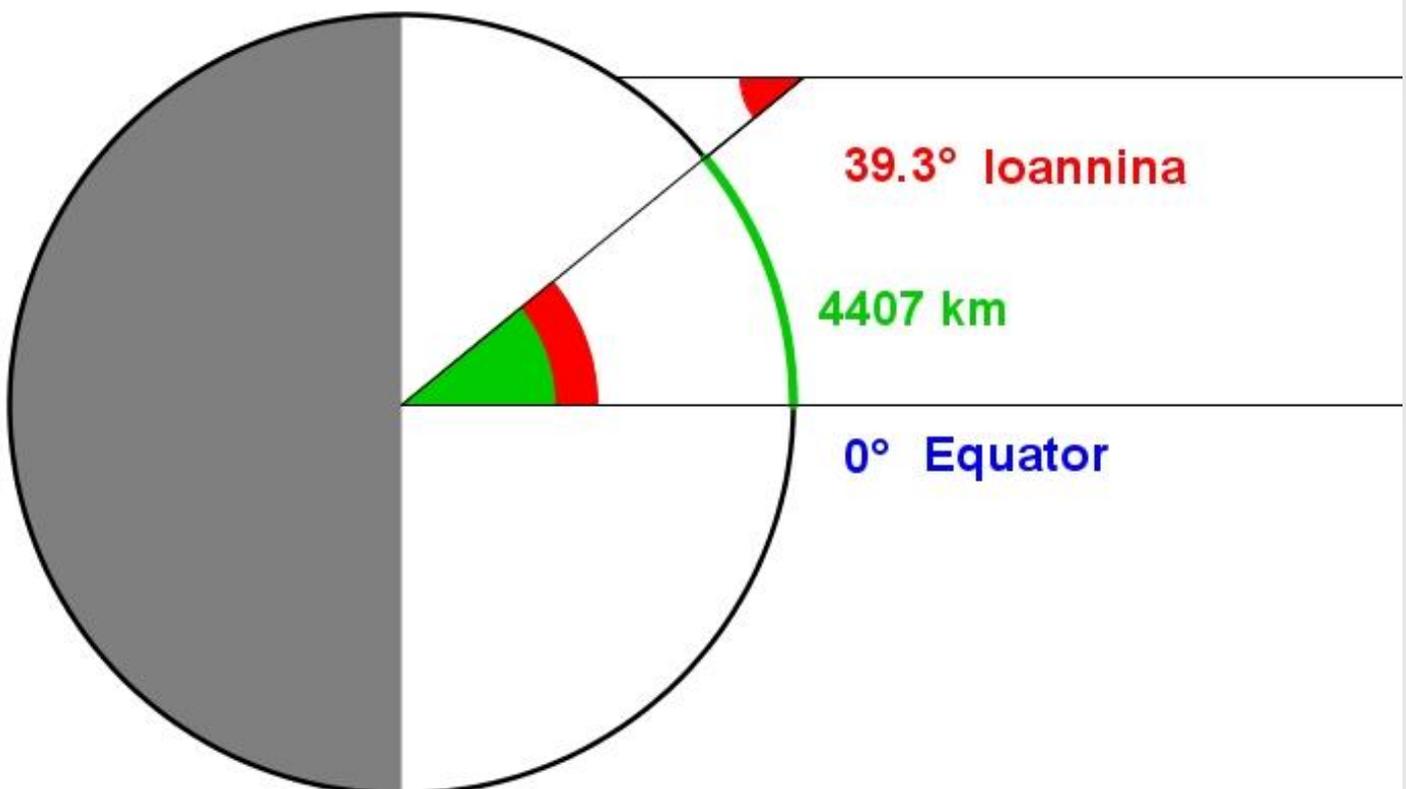


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Ioannina	Greece	Experimental College	39.666	20.845

Date	Gnomon	Shadow	Angle
September 08	100 cm	66.3 cm	36.6 °
September 09	100 cm	67.6 cm	34.1 °
September 10	100 cm	68.5 cm	34.4 °
September 17	100 cm	75.5 cm	37.1 °
September 22	100 cm	81 cm	39.0 °
September 23	100 cm	81.9 cm	39.3 °

23 september 2015 (Ioannina-GREECE) Latitude: 39.67°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4407 \text{ km}}{39.3^\circ - 0^\circ} = 40369 \text{ km}$$

Kavala, Greece

September 2015

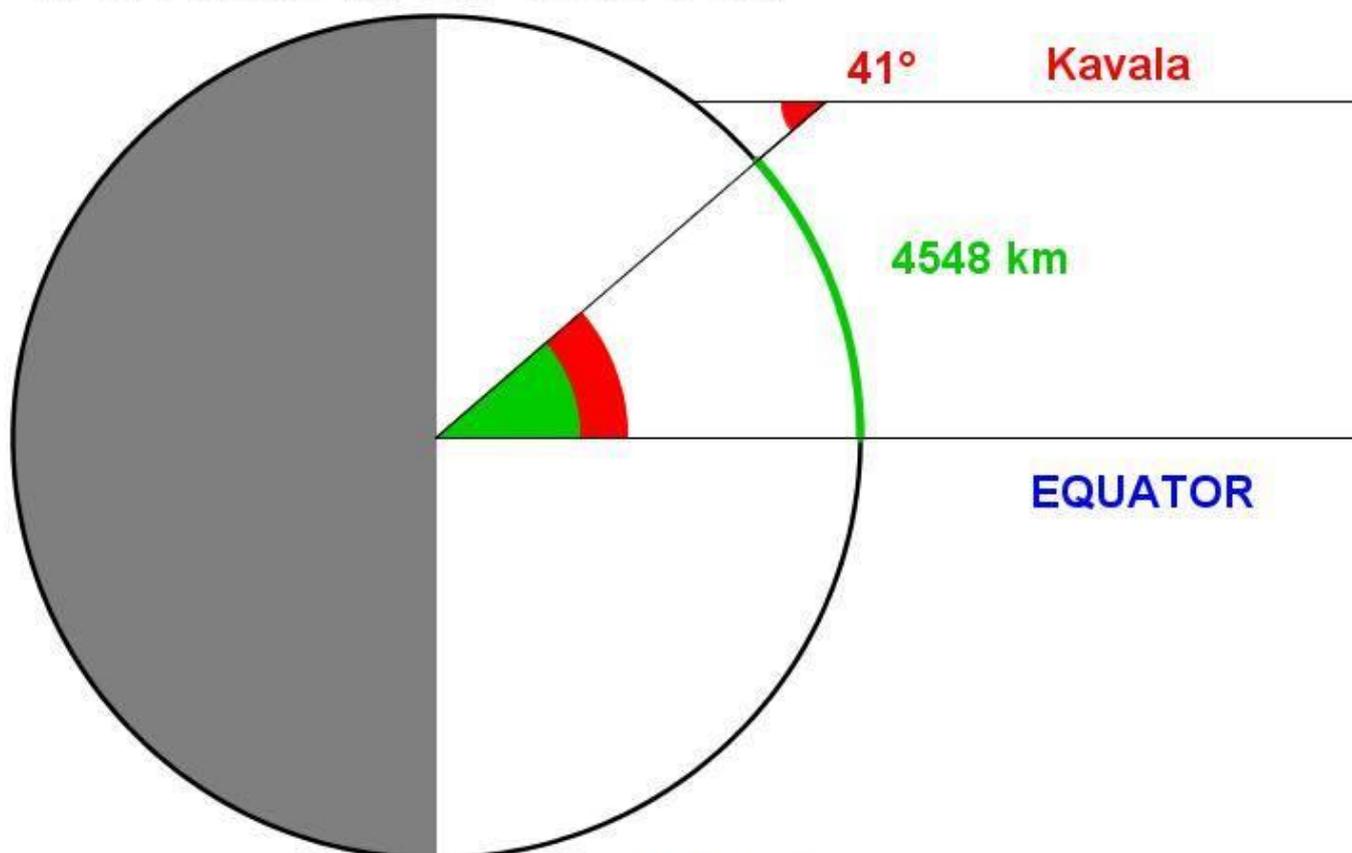


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Kavala	Greece	3rd Junior High School of Kavala	40.938	24.402

Date	Gnomon	Shadow	Angle
September 23	100 cm	87 cm	41 °

23 September 2015 (Kavala-GREECE 40.94)

23 SEPTEMBER 2015 (EQUATOR)



$$\text{circumference} = \frac{360^\circ \times 4548 \text{ km}}{41^\circ - 0^\circ} = 39934 \text{ km}$$

Kozani, Greece

September 2015

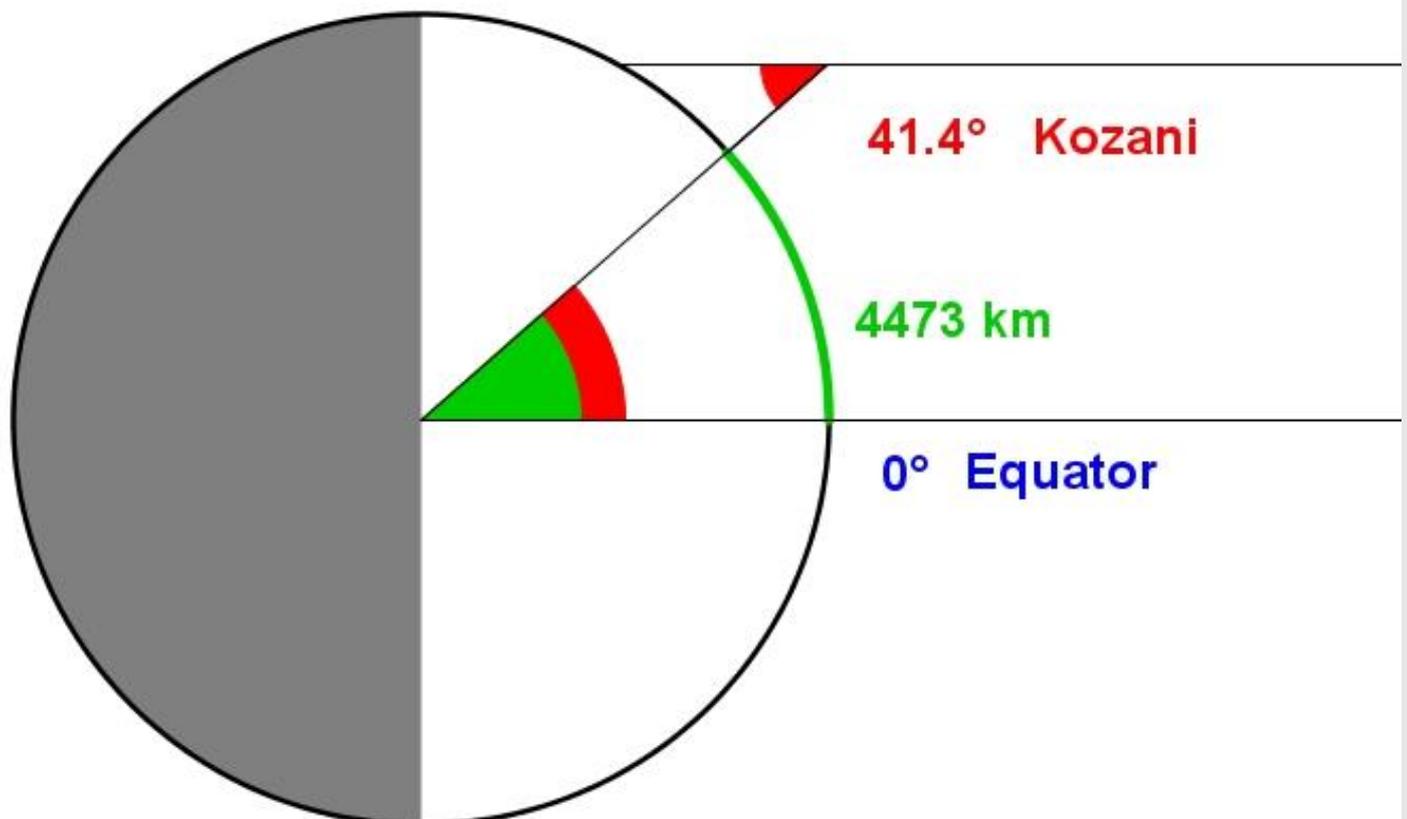


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Kozani	Greece	Junior High School of Krokos	40.265	21.815

Date	Gnomon	Shadow	Angle
September 10	100 cm	76 cm	37.2 °
September 11	100 cm	76.4 cm	37.4 °
September 17	100 cm	81 cm	39 °
September 23	100 cm	88.1 cm	41.4 °

23 september 2015 (Kozani-GREECE) Latitude: 40.27°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4473 \text{ km}}{41.4^\circ - 0^\circ} = 38896 \text{ km}$$

Lardos, Greece

September 2015

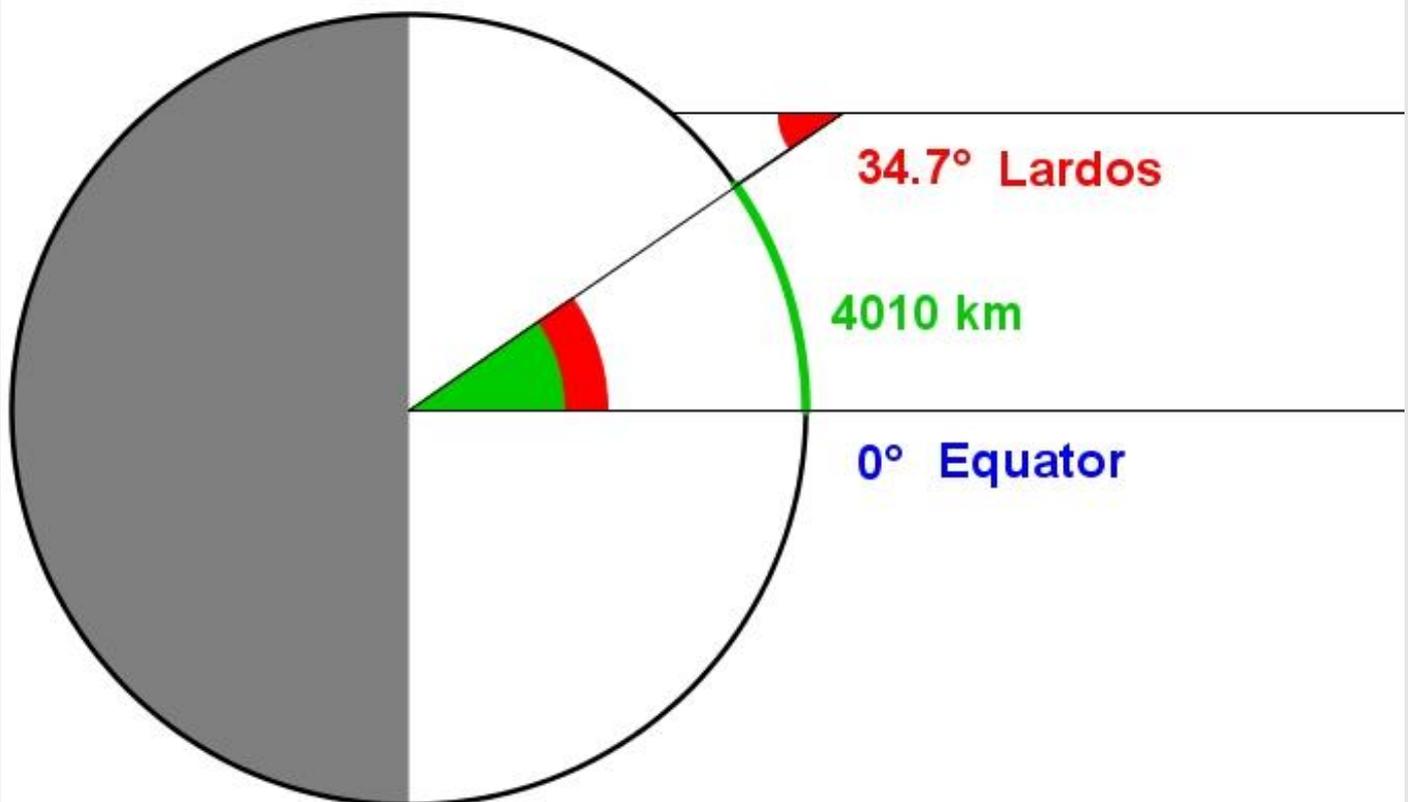


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Lardos	Greece	Primary School of Lardos	36.093	28.012

Date	Gnomon	Shadow	Angle
September 17	90 cm	62.5 cm	34.8 °
September 23	90 cm	62.4 cm	34.7 °

23 september 2015 (Lardos-GREECE) Latitude: 36.09°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4010 \text{ km}}{34.7^\circ - 0^\circ} = 41602 \text{ km}$$

Pastida, Greece

September 2015

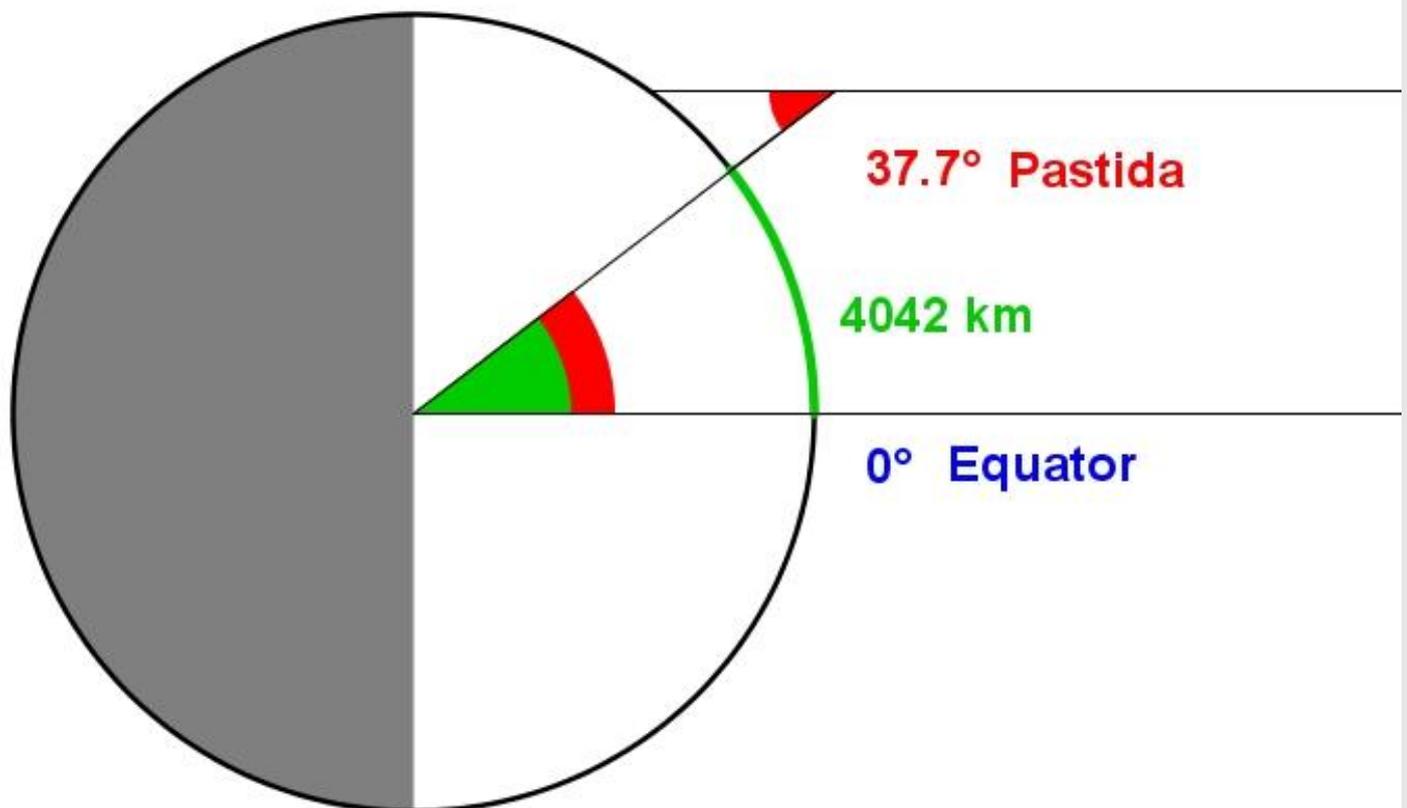


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Pastida	Greece	Primary School of Pastida	36.385	28.138

Date	Gnomon	Shadow	Angle
September 23	33.5 cm	25.9 cm	37.7 °

23 september 2015 (Pastida-GREECE) Latitude: 36.39°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4042 \text{ km}}{37.7^\circ - 0^\circ} = 38597 \text{ km}$$

Petroupoli, Greece

September 2015

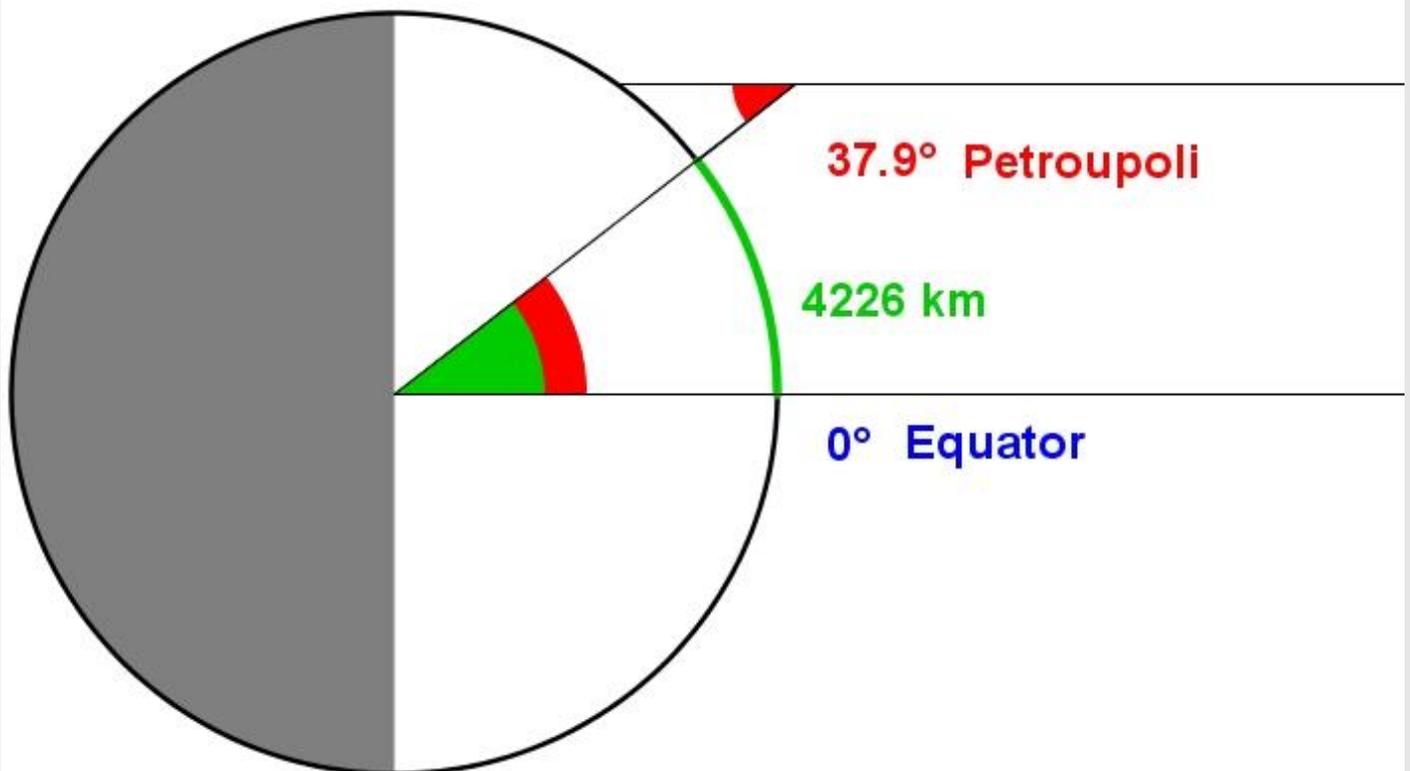


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Petroupoli	Greece	4o Junior High School	38.036	23.674

Date	Gnomon	Shadow	Angle
September 03	100 cm	59 cm	30.5 °
September 07	119 cm	73 cm	31.5 °
September 08	119 cm	74 cm	31.9 °
September 09	119 cm	76.5 cm	32.7 °
September 11	119 cm	78.5 cm	33.4 °
September 17	119 cm	85 cm	35.5 °
September 23	119 cm	92.8 cm	37.9 °
September 24	119 cm	94 cm	38.3 °

23 september 2015 (Petroupoli-GREECE) Latitude: 38.04°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4226 \text{ km}}{37.9^\circ - 0^\circ} = 40141 \text{ km}$$

Europe

Croatia:4 Schools, 2 Measurements

Romania:3 Schools, 3 Measurements

Italy:1 School, 11 Measurements

France:1 School, 6 Measurements

Spain:1 School, 4 Measurements

Serbia:1 School, 3 Measurements

Ukraine:1 School, 1 Measurement

Portugal:1 School, 1 Measurement

Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Donji Muć	Croatia	oš kneza Branimira	43.694	16.462
	Đurđevac	Croatia	High school Gimnazija Dr. Ivana Kranjčeva	46.039	25.535
	Neoric	Croatia	OŠ Neorić - Sutina	43.686	16.520
	Supetar	Croatia	High school Brač	43.261	16.655
	Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535
	Caracal	Romania	GH Magheru School	44.113	24.347
	Mărgineni	Romania	Gh. Popescu School	44.533	24.554
	Nis	Serbia	Gimnazija Svetozar Markovic	43.300	21.883
	Pont St Martin	Italy	Istituzione Scolastica Monte Rosa A	45.601	7.795
	Sverdlovsk	Ukraine	School #11	48.083	39.633
	Úbeda	Spain	Colegio Salesiano Santo Domingo Savio	38.017	-3.367
	Lafrançaise	France	Collège Antonin Perbosc	44.127	1.237
	Palmela	Portugal	Escola Secundária	38.571	-8,909

Busteni, Romania

September 2015

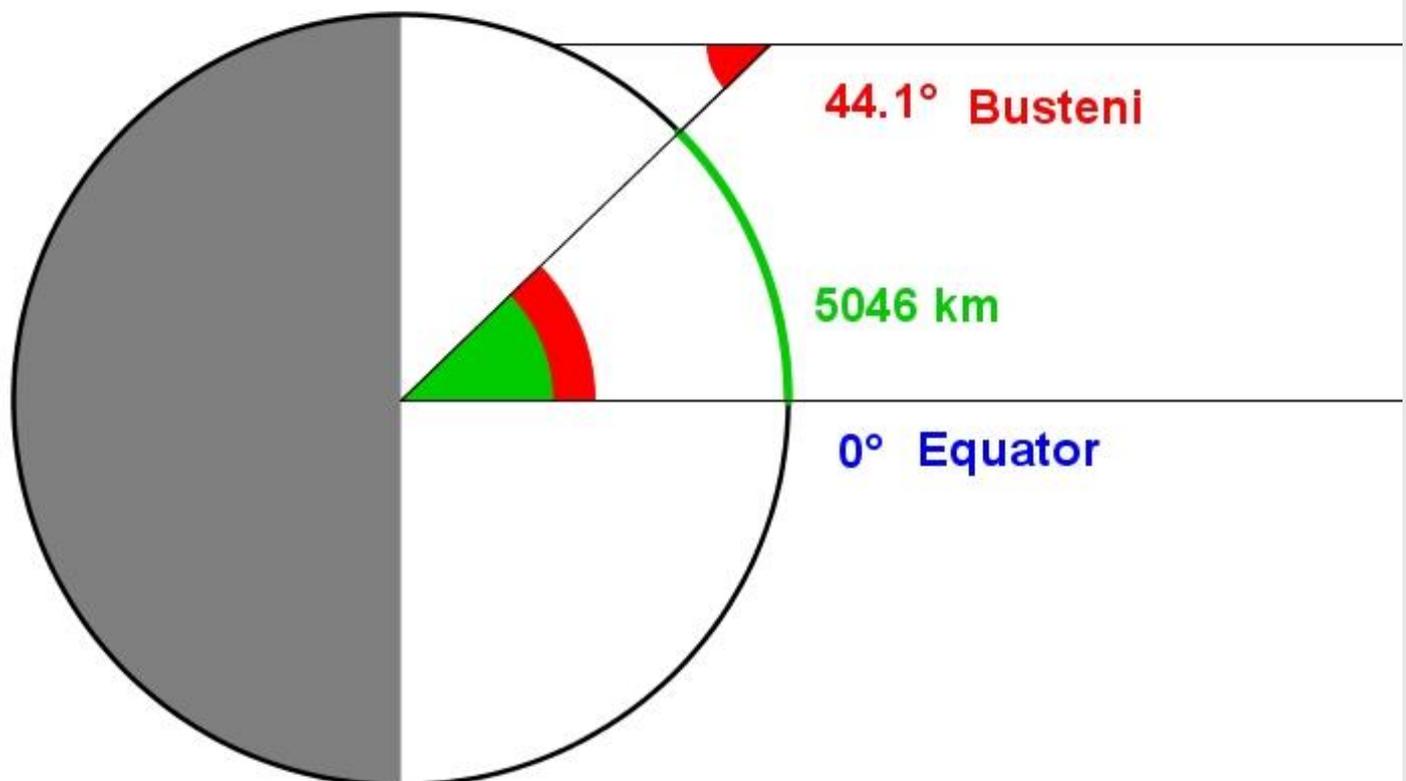


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535

Date	Gnomon	Shadow	Angle
September 23	100 cm	96.8 cm	44.1 °

23 september 2015 (Busteni-ROMANIA) Latitude: 45.42°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 5046 \text{ km}}{44.1^\circ - 0^\circ} = 41192 \text{ km}$$

Caracal, Romania

September 2015

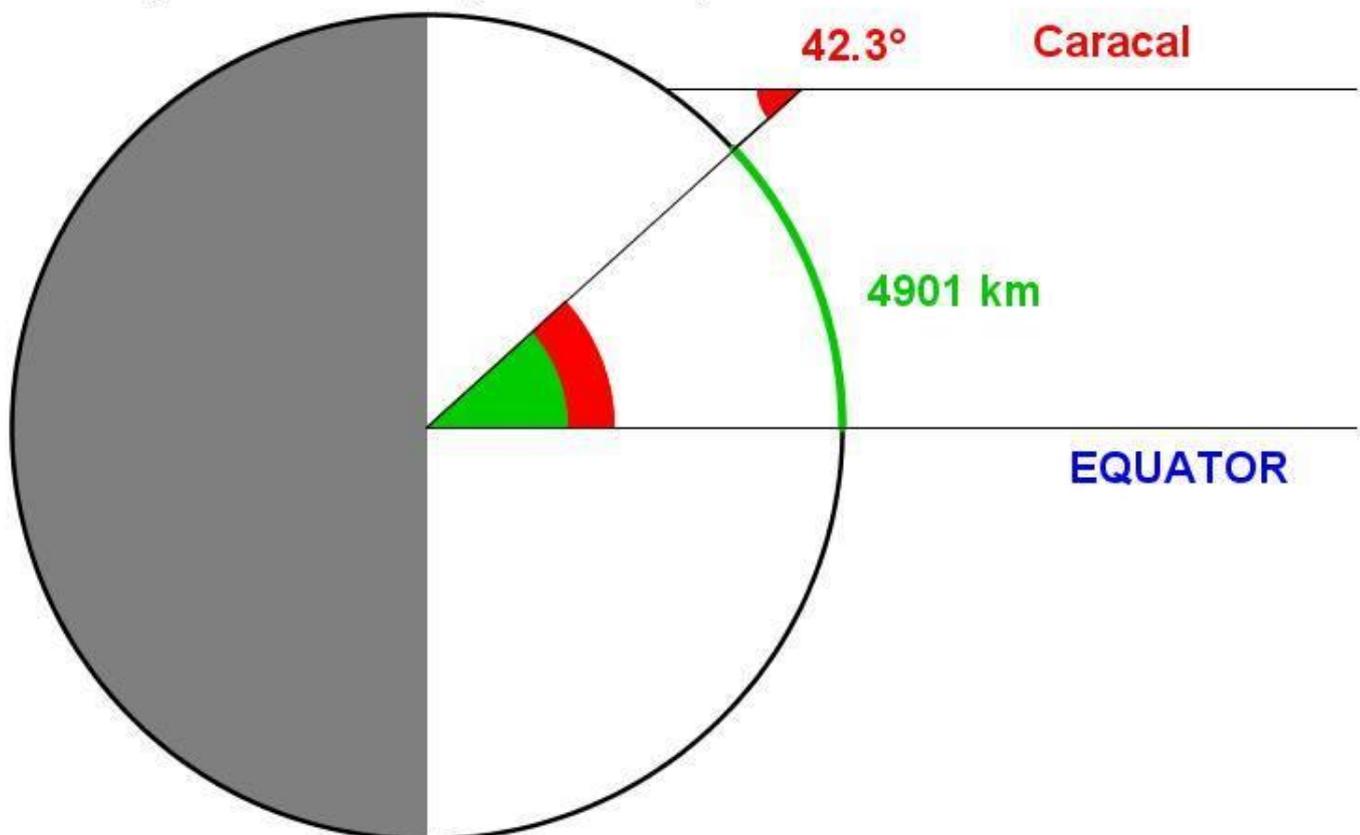


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Caracal	Romania	GH Magheru School	44.113	24.347

Date	Gnomon	Shadow	Angle
September 23	100 cm	91 cm	42.3 °

23 September 2015 (Caracal-ROMANIA 44.11)

23 September 2015 (EQUATOR)



$$\text{circumference} = \frac{360^\circ \times 4901 \text{ km}}{42.3^\circ - 0^\circ} = 41711 \text{ km}$$

Donji Muć, Croatia

September 2015

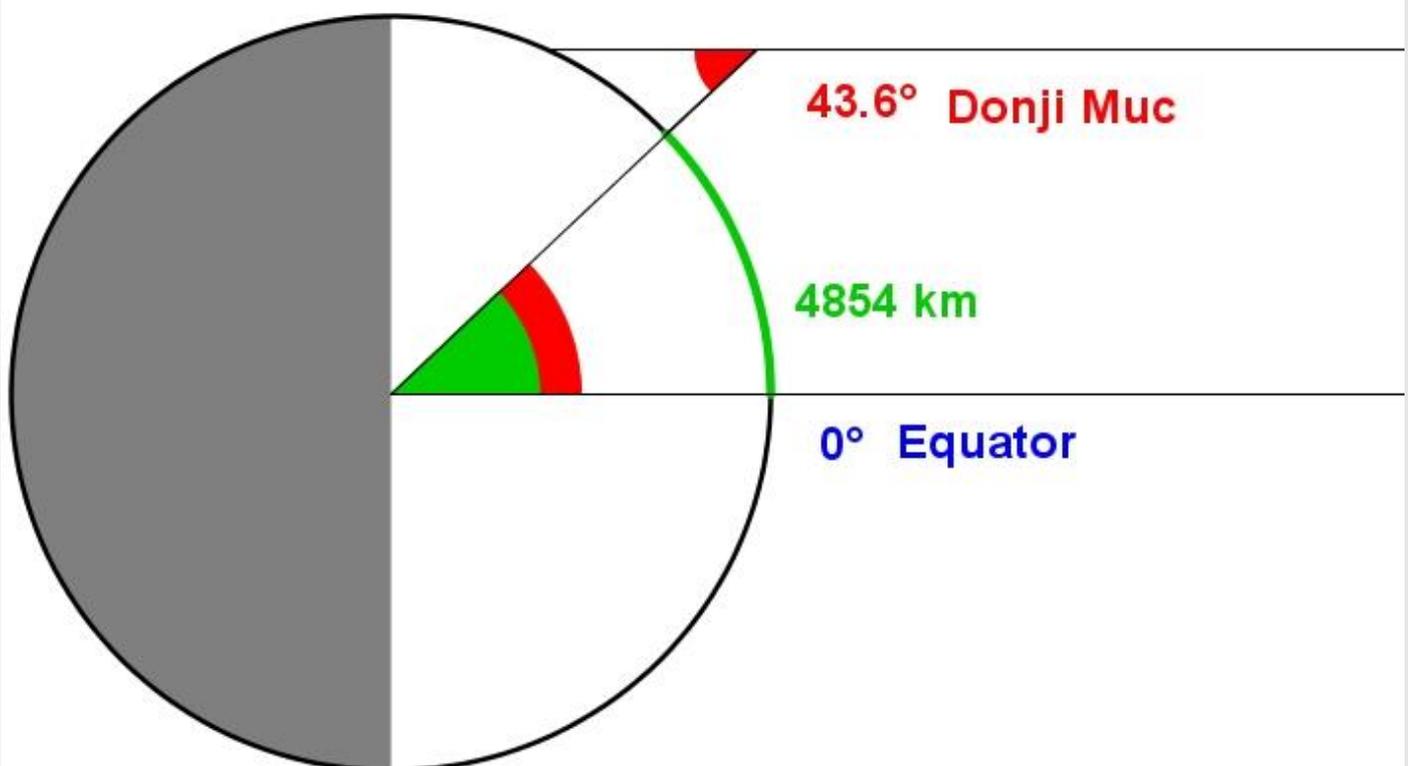


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Donji Muć	Croatia	oš kneza Branimira	43.694	16.462

Date	Gnomon	Shadow	Angle
September 08	100 cm	78 cm	38 °
September 10	100 cm	83 cm	39.7 °
September 22	100 cm	97.2 cm	44.2 °
September 23	100 cm	95.2 cm	43.6 °

23 september 2015 (Donji Muc-CROATIA) Latitude: 43.69°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4854 \text{ km}}{43.6^\circ - 0^\circ} = 40079 \text{ km}$$

Đurđevac, Croatia

September 2015

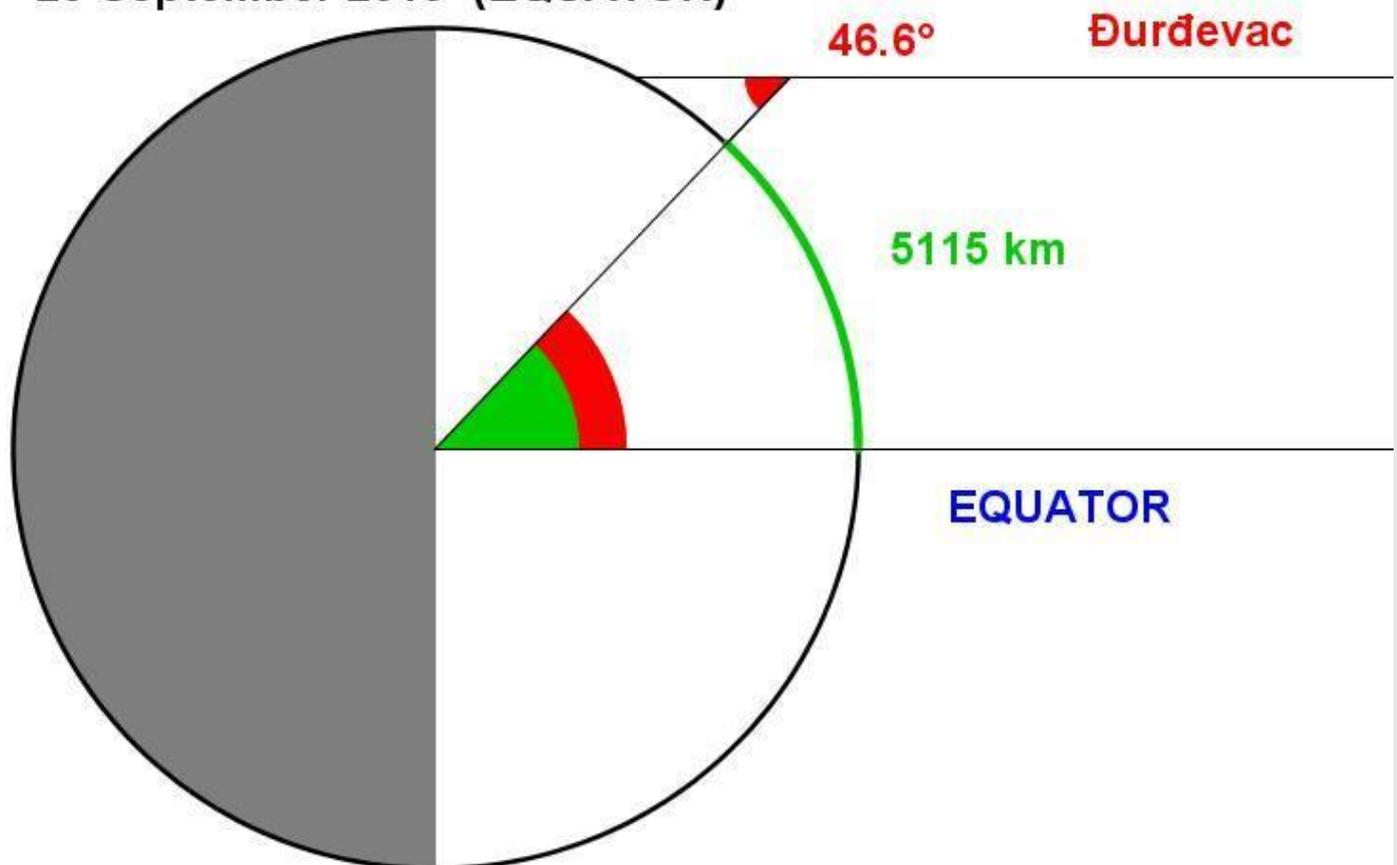


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Đurđevac	Croatia	High school Gimnazija Dr. Ivana Kranjčeva	46.039	25.535

Date	Gnomon	Shadow	Angle
September 23	100 cm	105.7 cm	46.6 °

23 September 2015 (Đurđevac-CROATIA 46.04)

23 September 2015 (EQUATOR)



$$\text{circumference} = \frac{360^\circ \times 5115 \text{ km}}{46.6^\circ - 0^\circ} = 39515 \text{ km}$$

Lafrançaise, France

September 2015

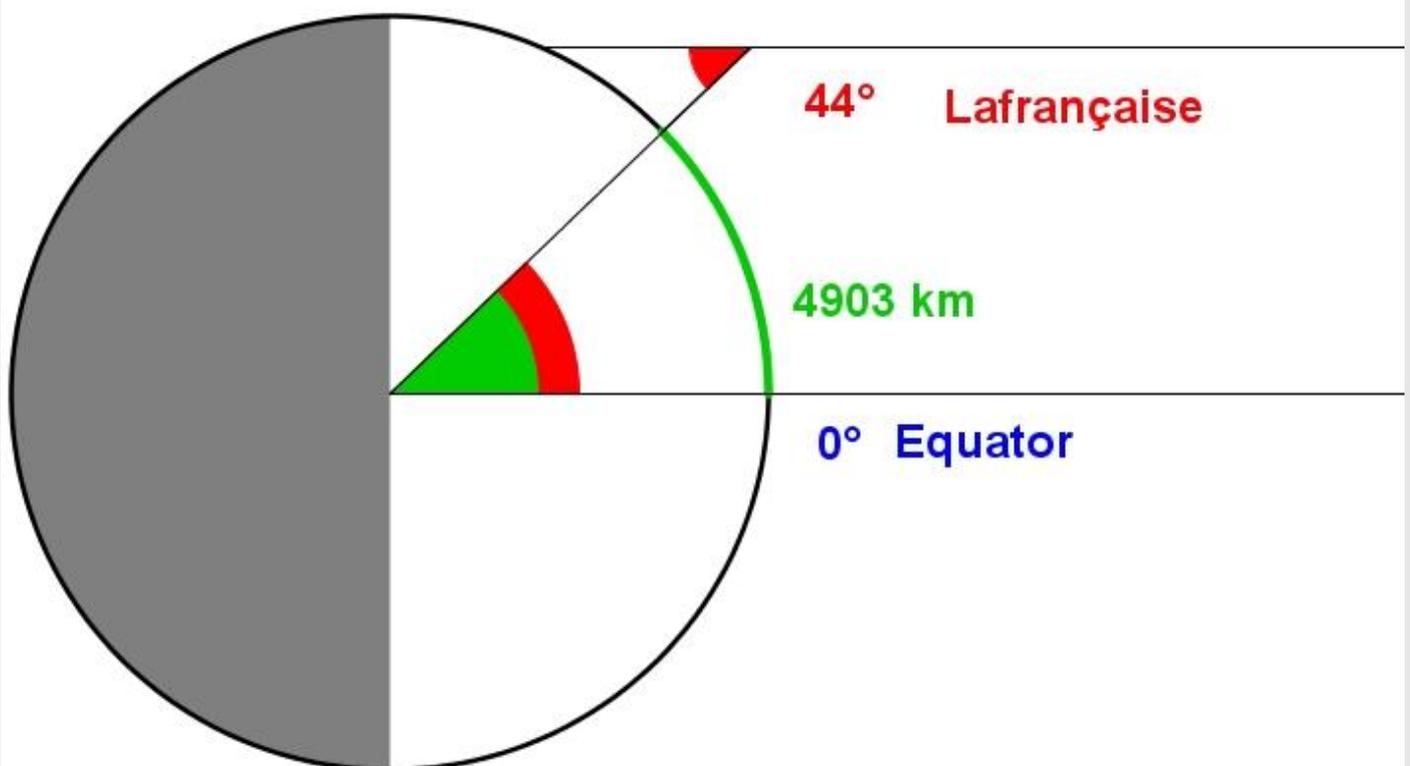


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Lafrançaise	France	Collège Antonin Perbosc	44.127	1.237

Date	Gnomon	Shadow	Angle
September 03	100 cm	74.5 cm	36.7 °
September 07	100 cm	78.3 cm	38.1 °
September 08	100 cm	78.3 cm	38.1 °
September 15	100 cm	87 cm	41 °
September 21	100 cm	93.8 cm	43.2 °
September 22	100 cm	95.4 cm	43.7 °

23 september 2015 (Lafrançaise-FRANCE) Latitude: 44.13°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4903 \text{ km}}{44^\circ - 0^\circ} = 40115 \text{ km}$$

Margineni, Romania

September 2015

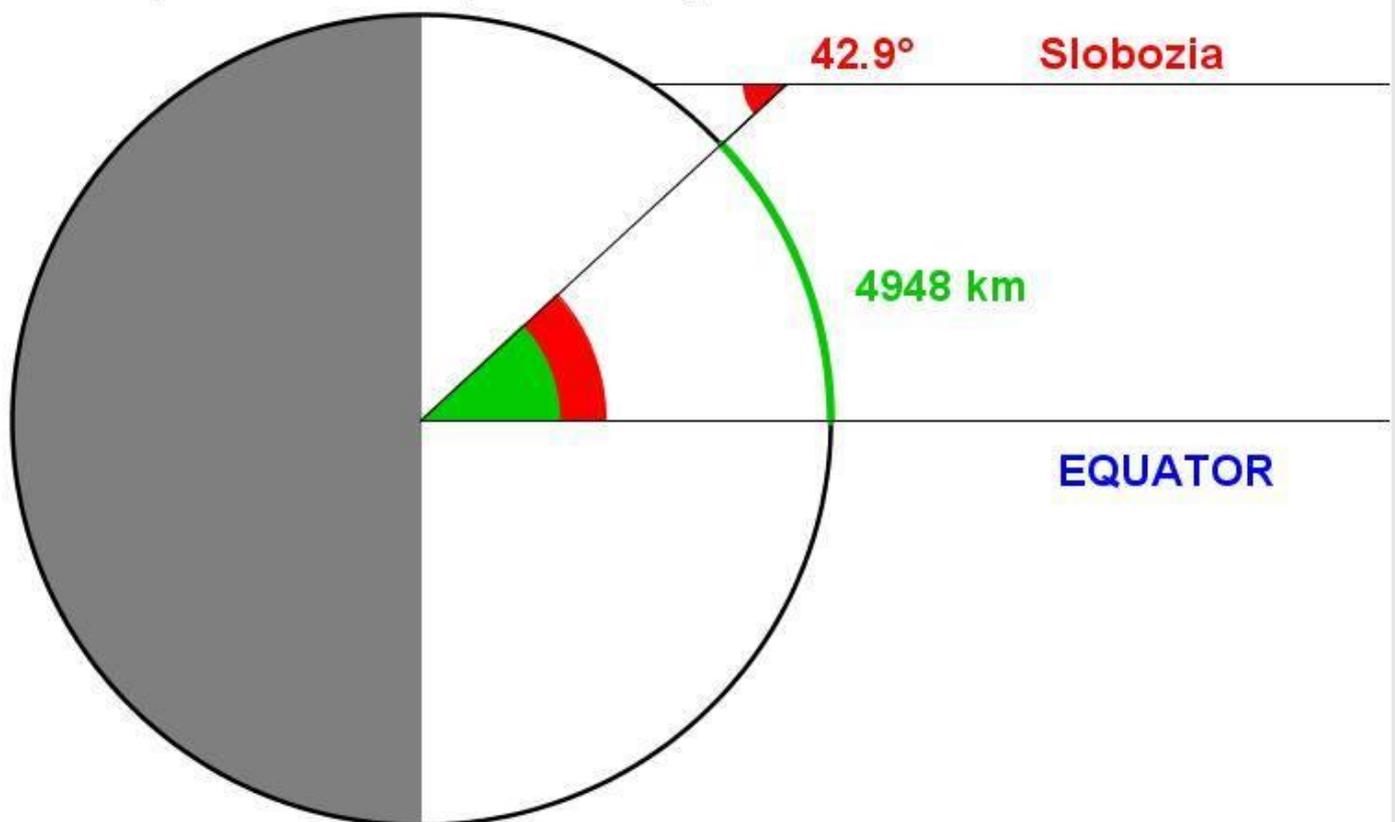


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Mărgineni	Romania	Gh. Popescu School	44.533	24.554

Date	Gnomon	Shadow	Angle
September 23	100 cm	93 cm	42.9 °

23 September 2015 (Slobozia-ROMANIA 44.53)

23 September 2015 (EQUATOR)



$$\text{circumference} = \frac{360^\circ \times 4948 \text{ km}}{42.9^\circ - 0^\circ} = 41522 \text{ km}$$

Neoric, Croatia

September 2015

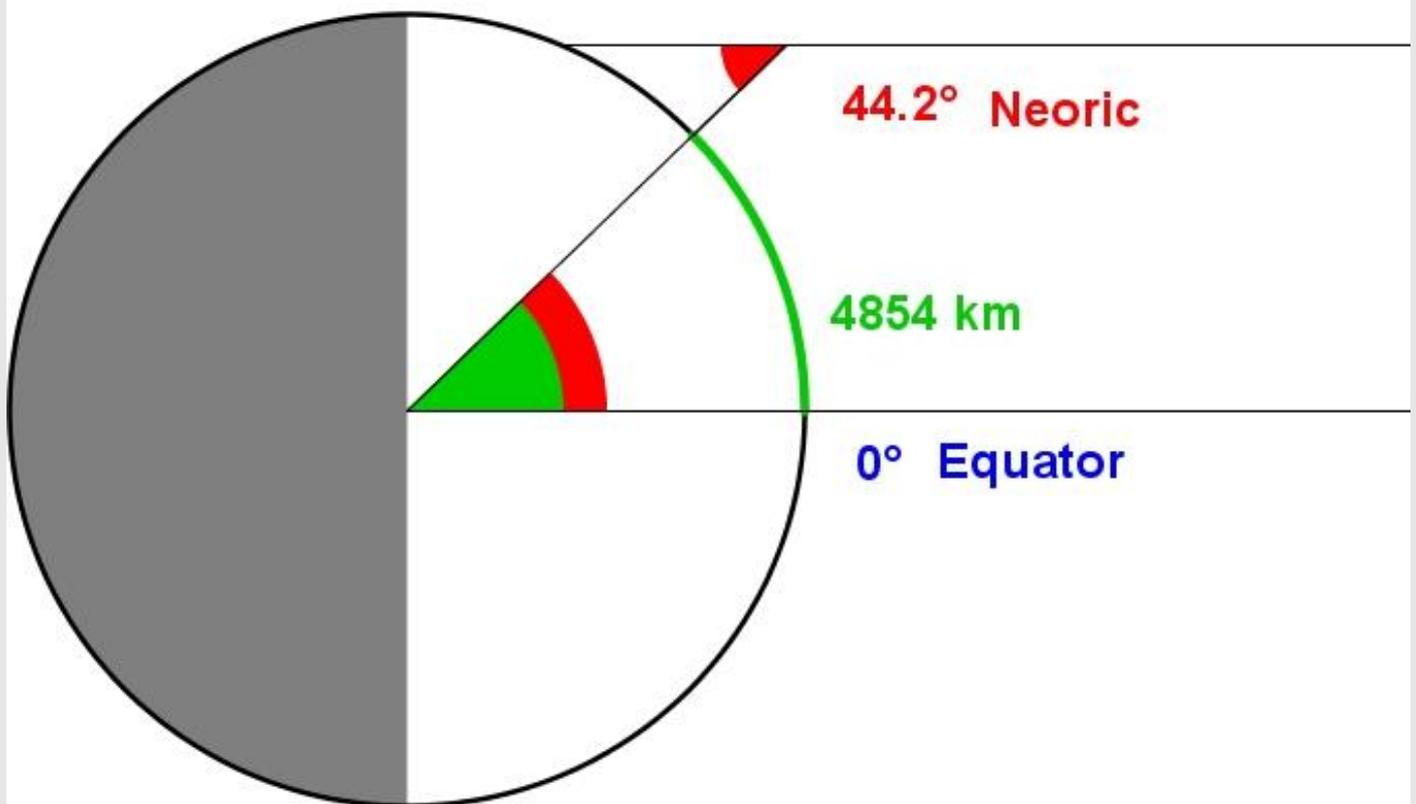


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Neoric	Croatia	OŠ Neorić - Sutina	43.686	16.520

Date	Gnomon	Shadow	Angle
September 21	100 cm	97.1 cm	44.2 °

23 september 2015 (Neoric-CROATIA) Latitude: 43.69°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4854 \text{ km}}{44.2^\circ - 0^\circ} = 39535 \text{ km}$$

Niš, Serbia

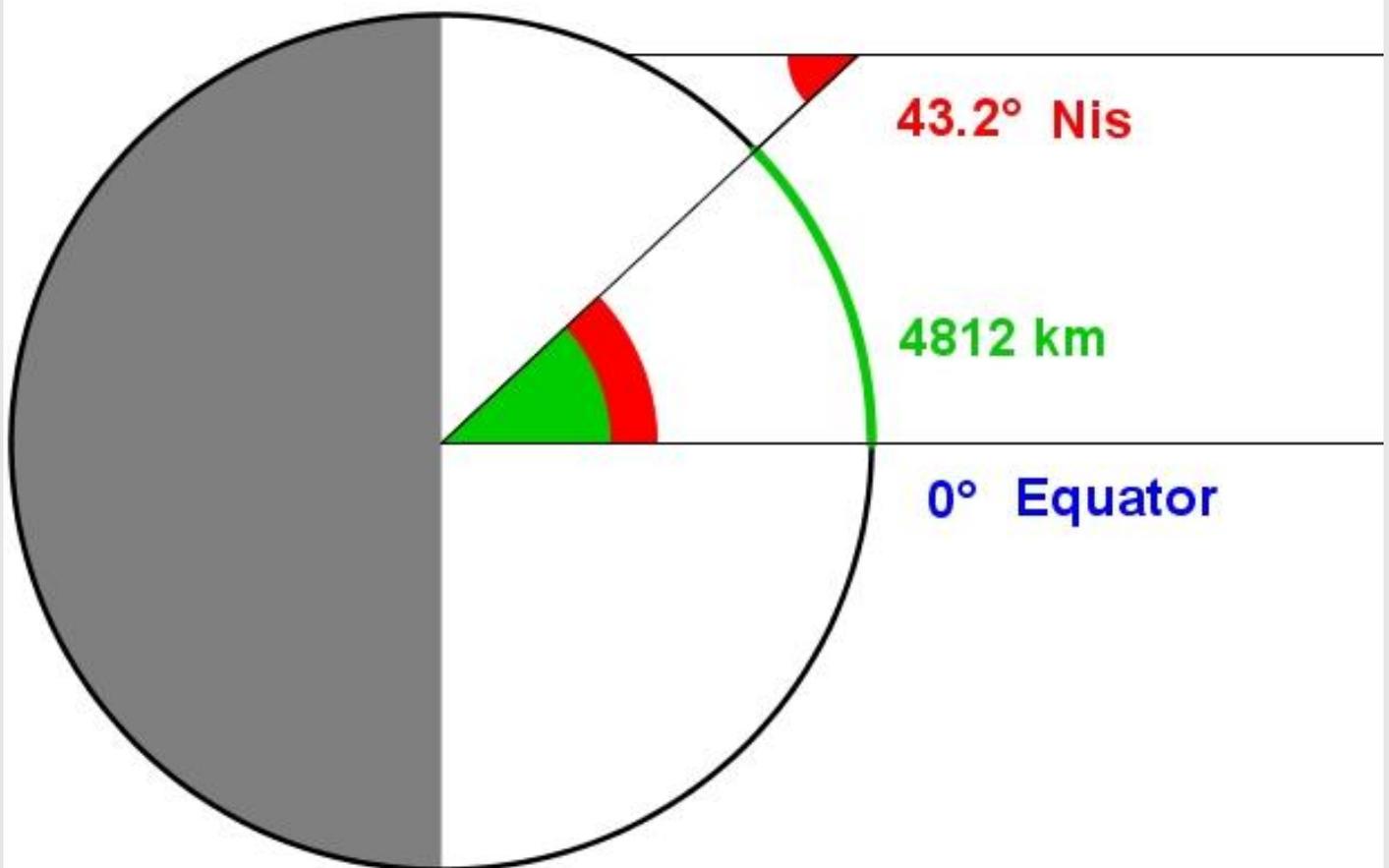
September 2015



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

Date	Gnomon	Shadow	Angle
September 18	100 cm	91.9 cm	42.6 °
September 22	100 cm	92.3 cm	42.7 °
September 23	100 cm	94 cm	43.2 °

23 september 2015 (Nis-SERBIA) Latitude: 43.31°
23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4812 \text{ km}}{43.2^\circ - 0^\circ} = 40100 \text{ km}$$

Palmela, Portugal

September 2015

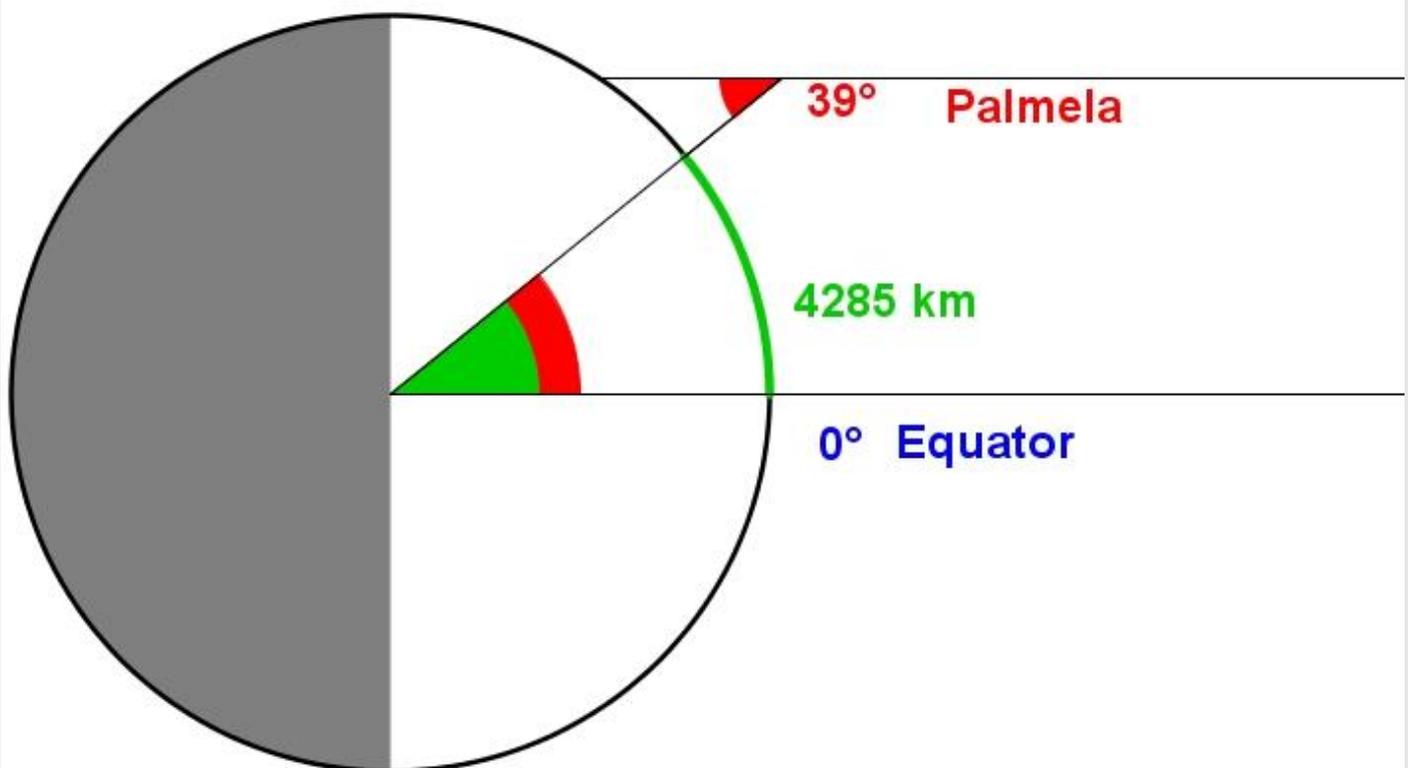


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Palmela	Portugal	Escola Secundária	38.571	-8,909

Date	Gnomon	Shadow	Angle
September 23	190.1 cm	154 cm	39.0 °

23 september 2015 (Palmela-PORTUGAL) Latitude: 38.57°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4285 \text{ km}}{39^\circ - 0^\circ} = 39554 \text{ km}$$

Pont St Martin, Italy

September 2015

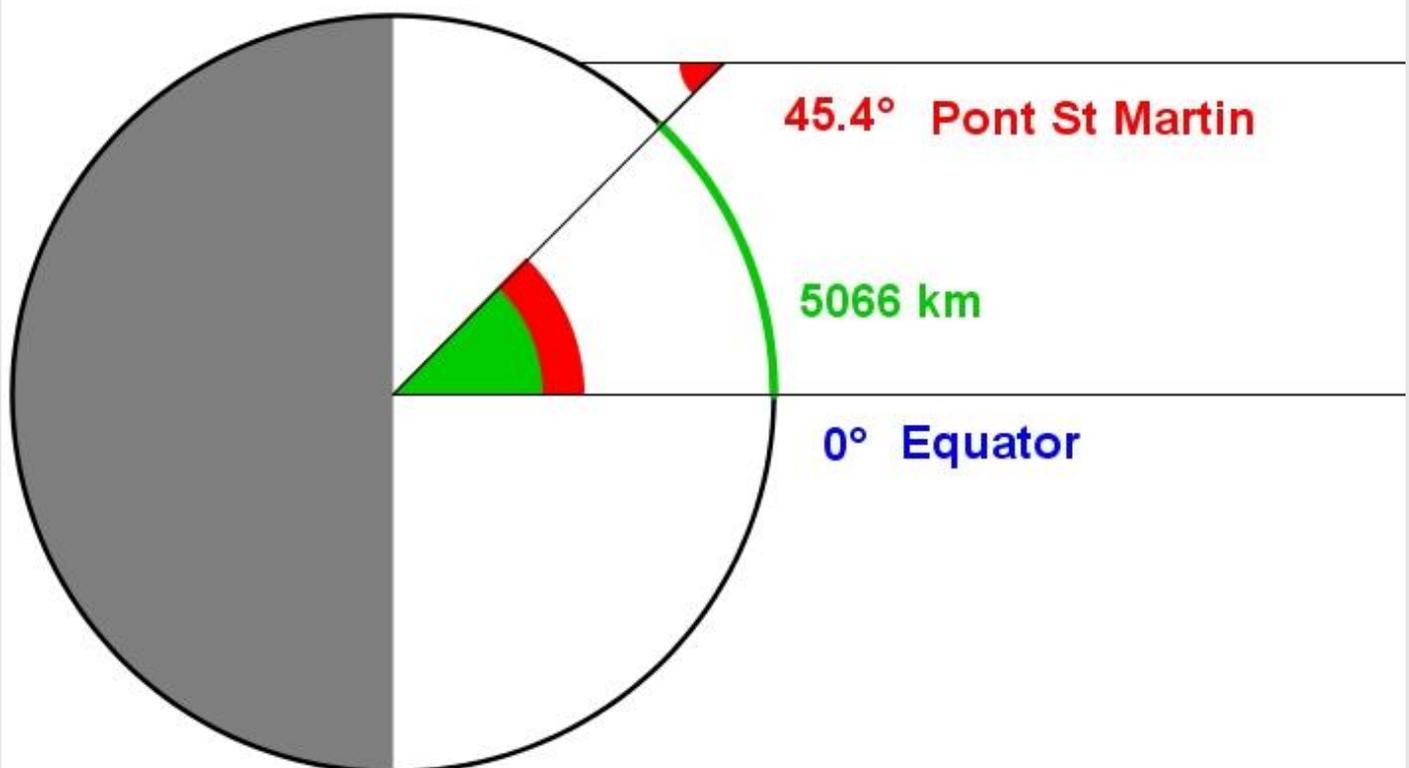


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Pont St Martin	Italy	Istituzione Scolastica Monte Rosa A	45.601	7.795

Date	Gnomon	Shadow	Angle
September 07	100 cm	81 cm	39 °
September 08	100 cm	83 cm	39.7 °
September 09	100 cm	83.5 cm	39.9 °
September 10	100 cm	84 cm	40 °
September 12	100 cm	86.5 cm	40.9 °
September 18	100 cm	95 cm	43.5 °
September 20	100 cm	97.5 cm	44.3 °
September 21	100 cm	99.5 cm	44.9 °
September 23	100 cm	101.5 cm	45.4 °
September 24	100 cm	103 cm	45.8 °
September 25	100 cm	105 cm	46.4 °

23 september 2015 (Pont St Martin-ITALY) Latitude: 45.6°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 5066 \text{ km}}{45.4^\circ - 0^\circ} = 40171 \text{ km}$$

Supetar, Croatia

September 2015

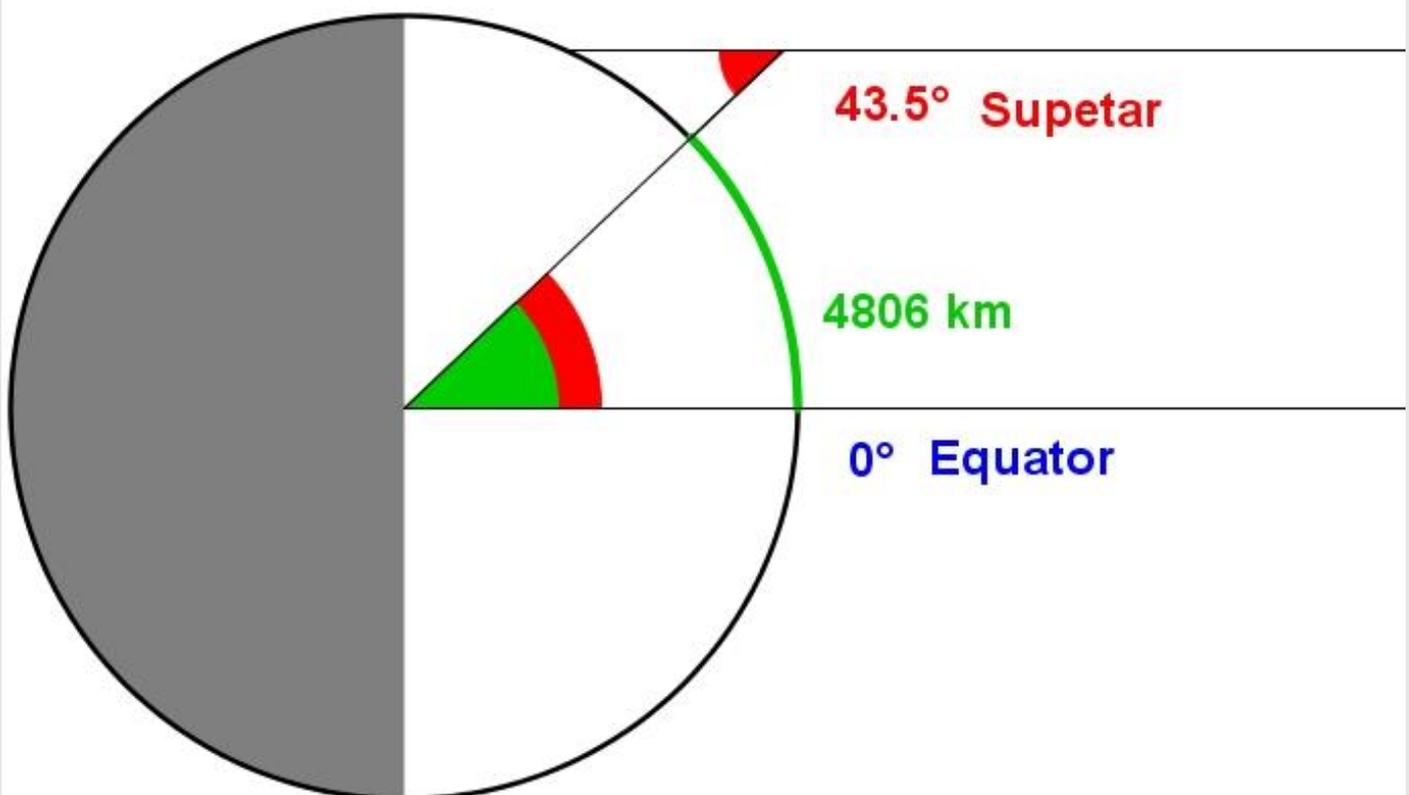


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Supetar	Croatia	High school Brač	43.261	16.655

Date	Gnomon	Shadow	Angle
September 23	99.5 cm	94.3 cm	27.4 °

23 september 2015 (Supetar-CROATIA) Latitude: 43.26°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4806 \text{ km}}{43.5^\circ - 0^\circ} = 39774 \text{ km}$$

Sverdlovsk, Ukraine

September 2015

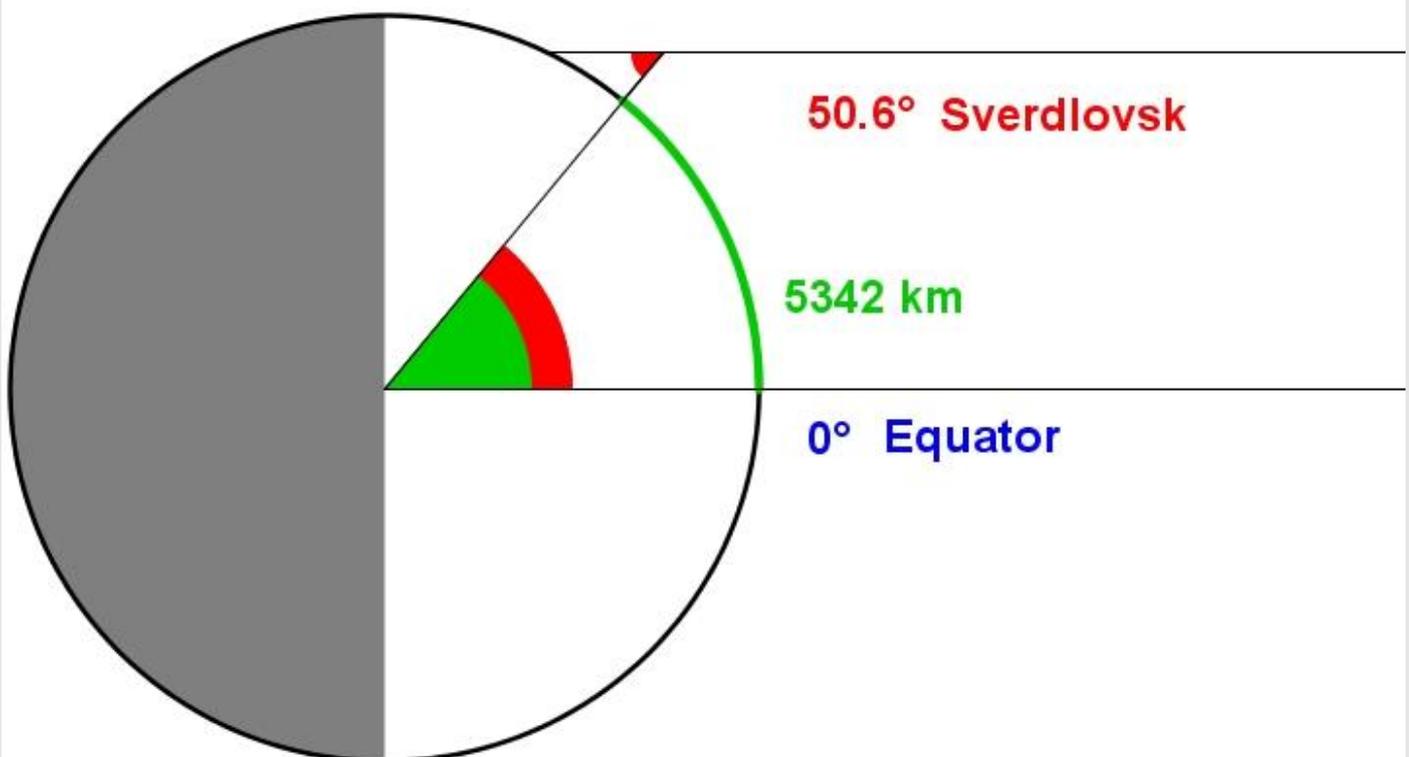


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Sverdlovsk	Ukraine	School #11	48.083	39.633

Date	Gnomon	Shadow	Angle
September 22	69 cm	81 cm	50.6 °

23 september 2015 (Sverdlovsk-UKRAINE) Latitude: 48.08°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 5342 \text{ km}}{50.6^\circ - 0^\circ} = 38006 \text{ km}$$

Ubeda, Spain

September 2015

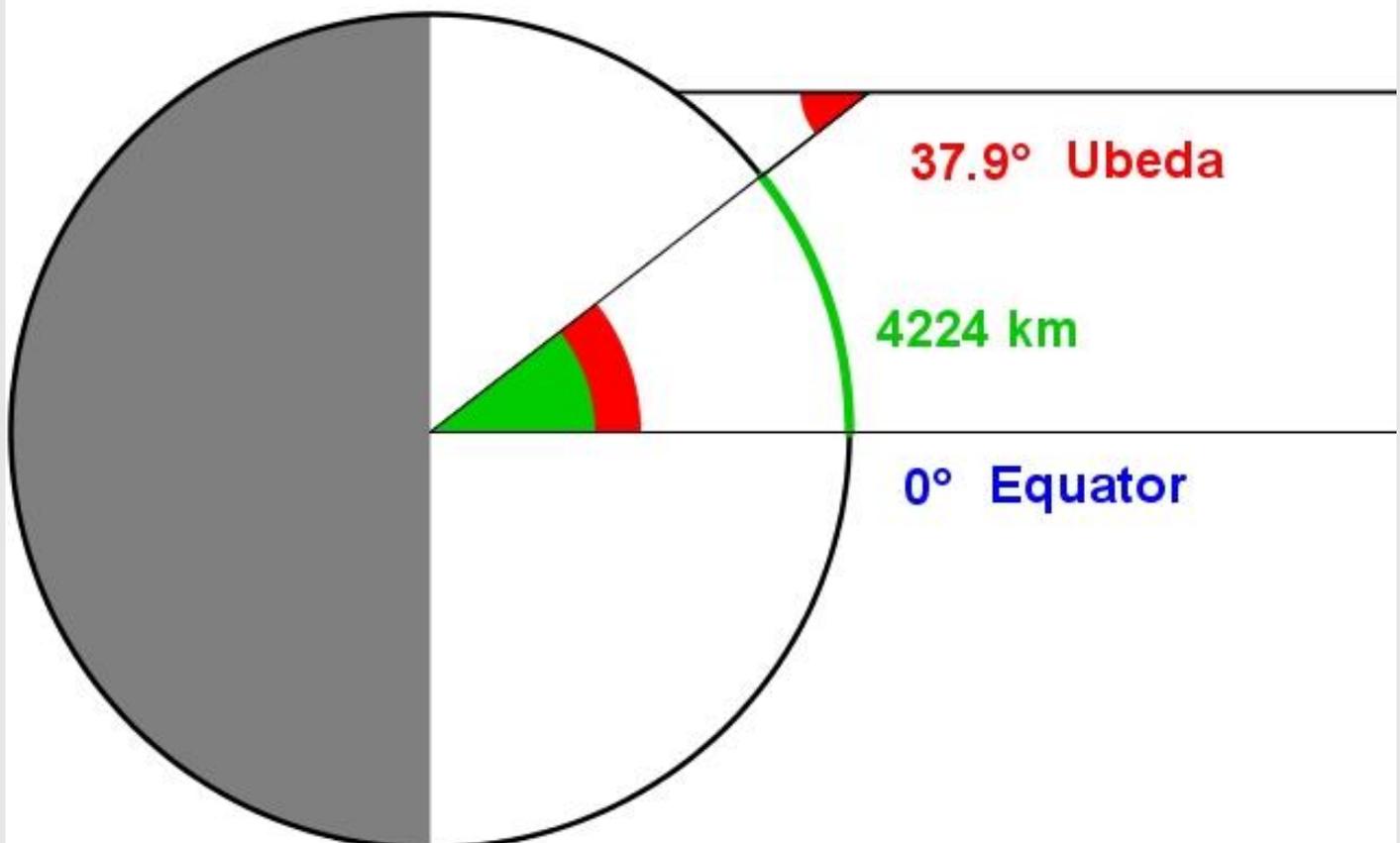


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Úbeda	Spain	Colegio Salesiano Santo Domingo Savio	38.017	-3.367

Date	Gnomon	Shadow	Angle
September 17	106.8 cm	76.9 cm	35.8 °
September 22	106.9 cm	81.8 cm	37.4 °
September 23	106.8 cm	83 cm	37.9 °
September 25	106.8 cm	84.8 cm	38.4 °

23 september 2015 (Ubeda-SPAIN) Latitude: 38.02°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 4224 \text{ km}}{37.9^\circ - 0^\circ} = 40122 \text{ km}$$

Asia

India:2 Schools, 2 Measurements

China:1 School, 2 Measurements

Malaysia:1 School, 2 Measurements

Taiwan:1 School, 2 Measurements

America

Brazil:4 Schools, 10 Measurements

Argentina:3 Schools, 9 Measurements

Uruguay:1 School, 4 Measurements

Africa

Tunisia:1 School, 1 Measurement

Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Baghpat	India	Dhanaura Silver Nagar Inter college	28.937	77.218
	Yamunanagar	India	C V Raman Science Club	30.117	77.250
	Shenzhen	China	蓋園小學南校區	22.549	114.092
	Kuantan	Malaysia	SMK St Thomas	3.817	103.333
	Kaohsiung	Taiwan	鳳西國中 FXM	22.621	120.354
	Anisacate	Argentina	Fundación Caminos de Anisacate	-31.717	-64.400
	Buenos Aires	Argentina	Instituto Mario Madeddu	-34.736	-58.431
	José de la Quintana	Argentina	I.P.E.T. N° 265 "Escuela de Minería"	-31.804	-64.414
	Rio de Janeiro	Brazil	Centro Educacional Nosso Mundo	-22.890	-43.317
	Rio de Janeiro	Brazil	PUC Pontificia Universidade Catolilica	-22.978	-43.230
	Rio de Janeiro	Brazil	VOE Vila Olímpica do Encantado	-22.894	-43.300
	São João de Meriti	Brazil	31 Marechal Rondon	-22.800	-43.367
	Paysandú	Uruguay	Liceo N° 1 de Paysandú	-32.316	-58.093
	Tunis	Tunisia	Ecole primaire 16 Rue de Russie	36.795	10.177

Anisacate, Argentina

September 2015

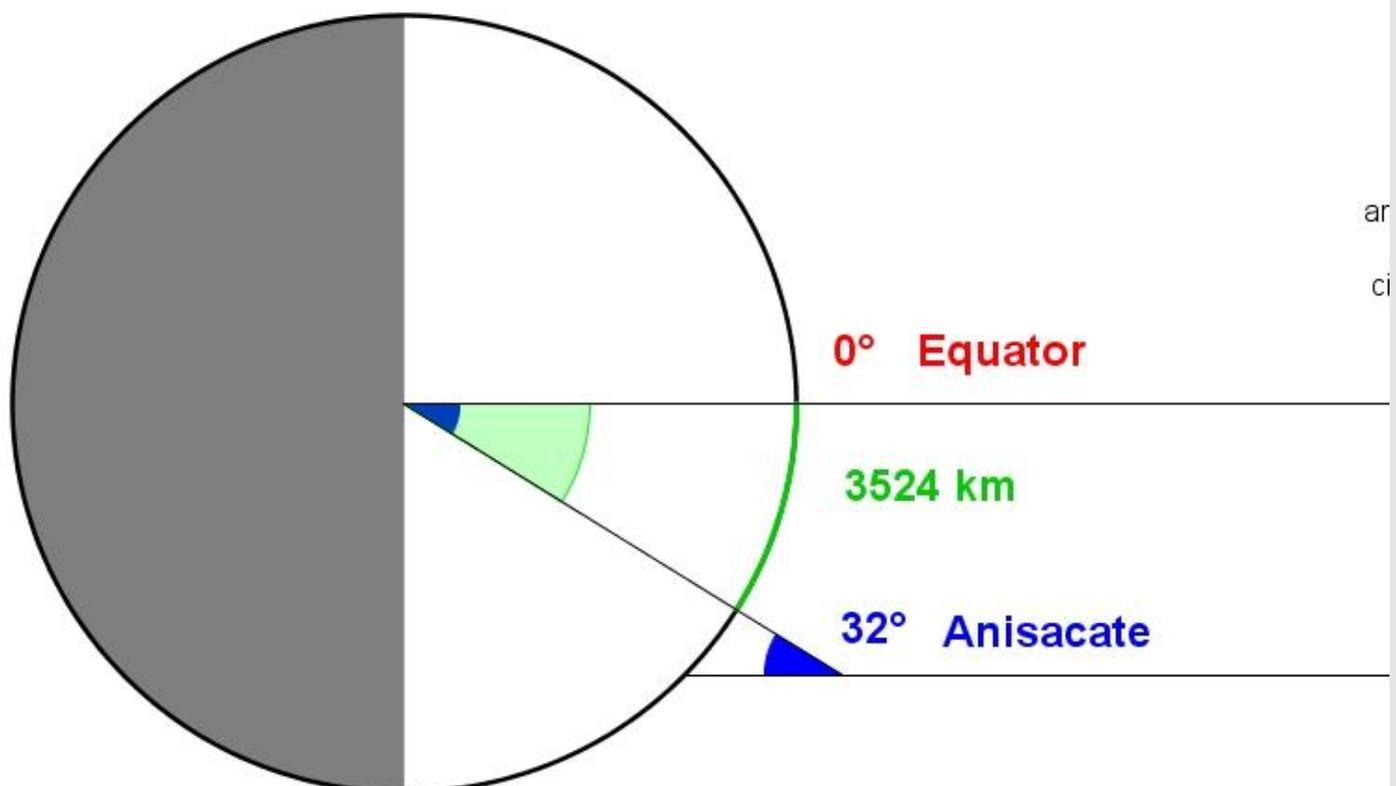


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Anisacate	Argentina	Fundación Caminos de Anisacate	-31.717	-64.400

Date	Gnomon	Shadow	Angle
September 12	96 cm	-67.5 cm	-34 °
September 14	96 cm	-66 cm	-34.5 °
September 15	96 cm	-65 cm	-34.1 °
September 17	96 cm	-63 cm	-33.3 °
September 18	100 cm	-66.5 cm	-33.6 °
September 19	100 cm	-66.5 cm	-33.6 °
September 27	100 cm	-58 cm	-30.1 °

23 September 2015 (Equator-) Latitude: 0°

23 September 2015 (Anisacate-ARGENTINA) Latitude: -31.72°



$$\text{circumference} = \frac{360^\circ \times 3524 \text{ km}}{0^\circ + 32^\circ} = 39645 \text{ km}$$

Baghpat, India

September 2015

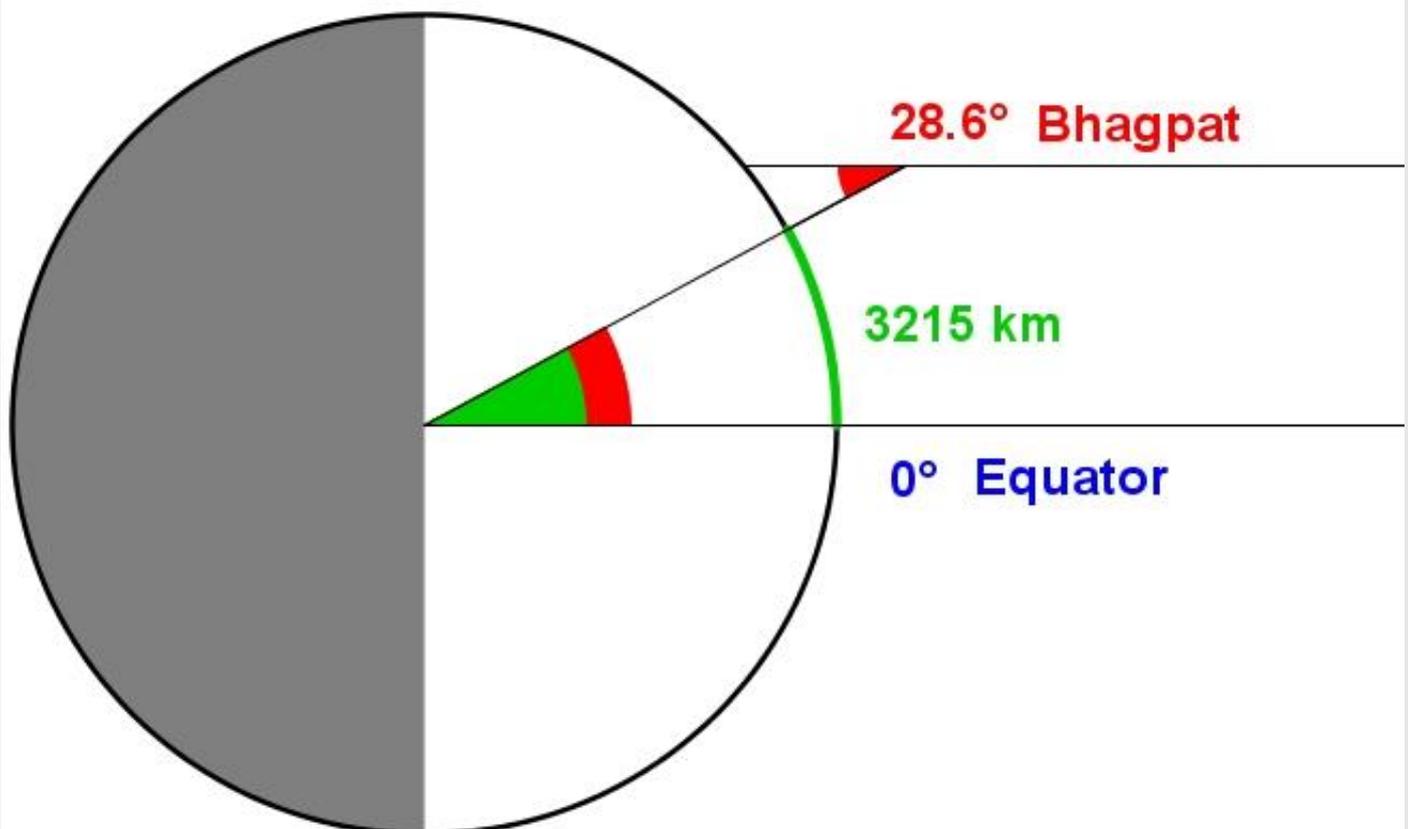


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Baghpat	India	Dhanaura Silver Nagar Inter college	28.937	77.218

Date	Gnomon	Shadow	Angle
September 23	33 cm	18 cm	28.6 °

23 september 2015 (Bhagpat-INDIA) Latitude: 28.94°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 3215 \text{ km}}{28.6^\circ - 0^\circ} = 40469 \text{ km}$$

Buenos Aires, Argentina

September 2015

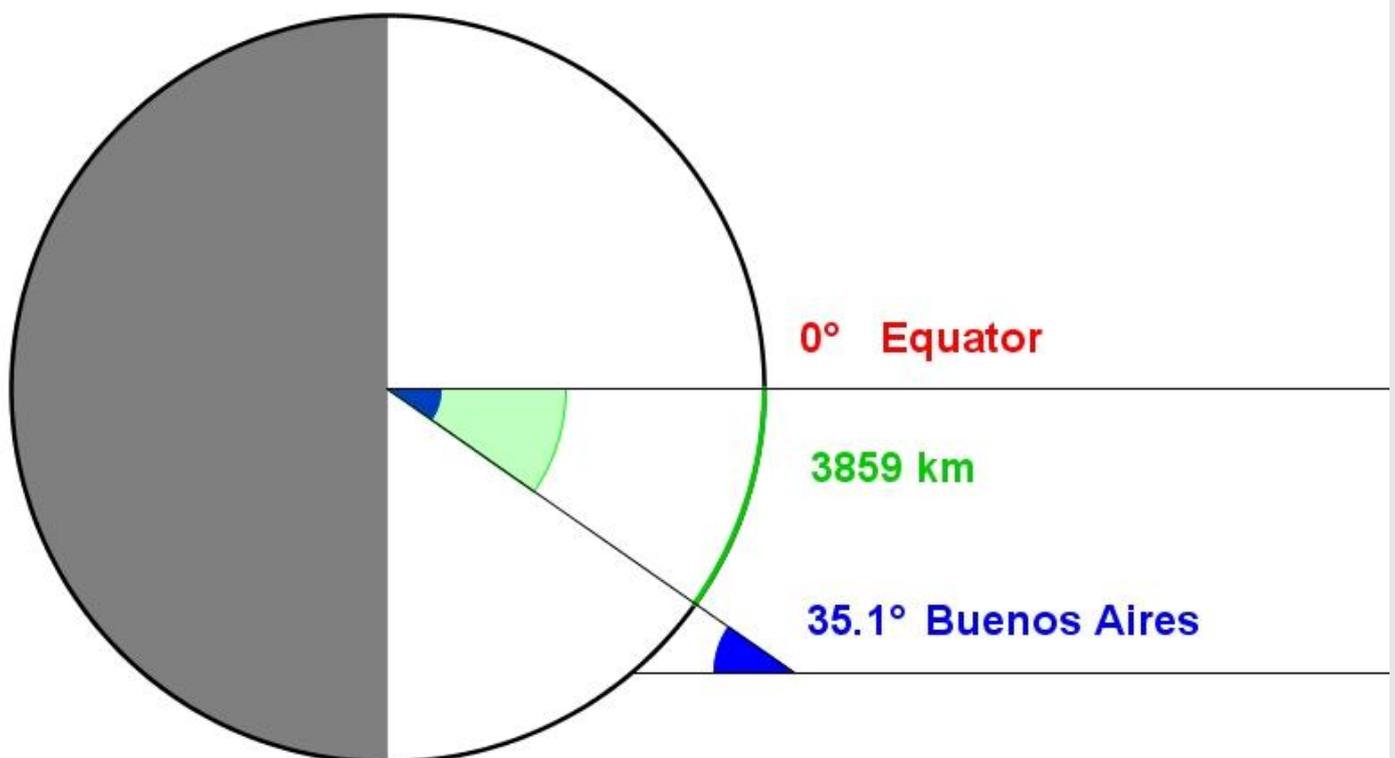


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Buenos Aires	Argentina	Instituto Mario Madeddu	-34.736	-58.431

Date	Gnomon	Shadow	Angle
September 17	29 cm	-23.2 cm	-38.7 °
September 18	25 cm	-17.6 cm	-35.1 °

23 September 2015 (Equator-) Latitude: 0°

18 September 2015 (Buenos Aires-ARGENTINA) Latitude: -34.74°



$$\text{circumference} = \frac{360^\circ \times 3859 \text{ km}}{0^\circ + 35.1^\circ} = 39579 \text{ km}$$

José de la Quintana, Argentina

September 2015



Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	José de la Quintana	Argentina	I.P.E.T. N° 265 "Escuela de Minería"	-31.804	-64.414



Kaohsiung - FXM ,Taiwan

September 2015

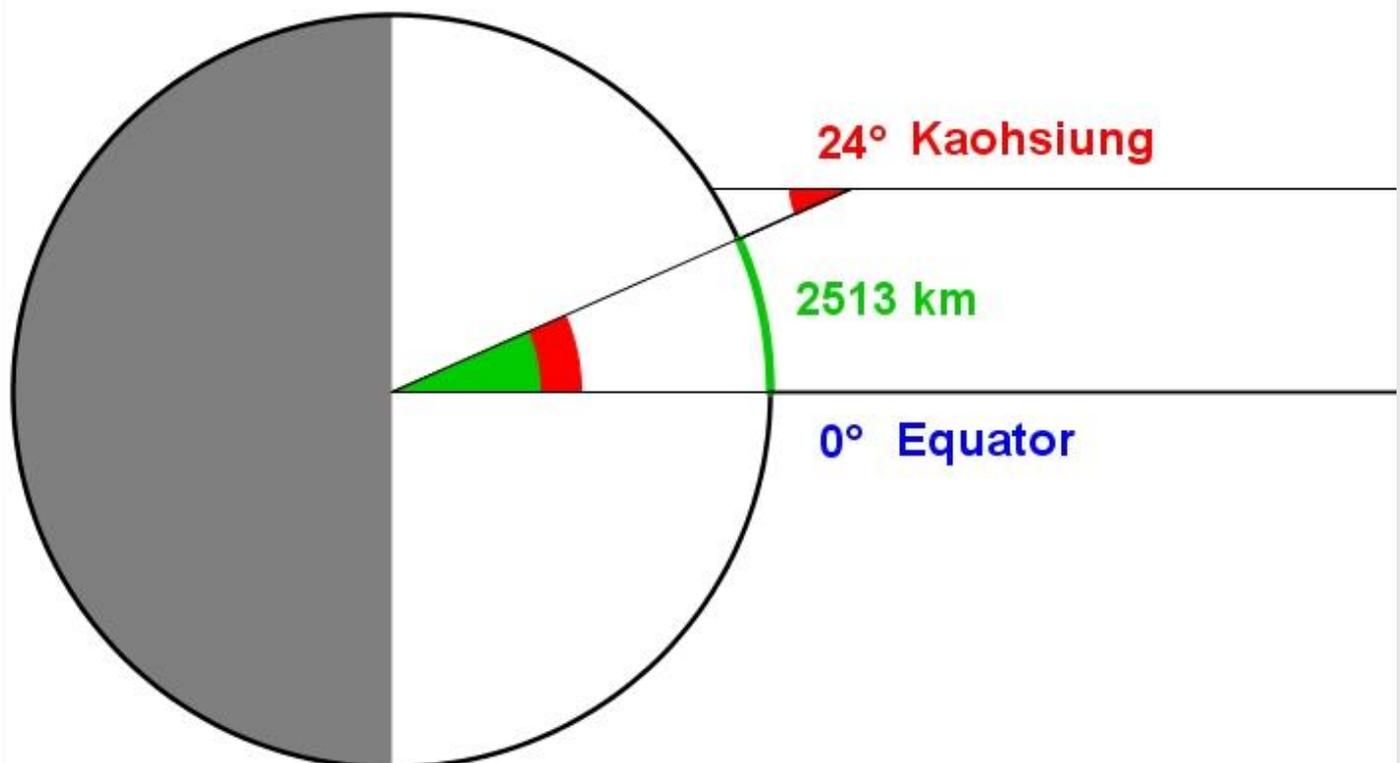


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Kaohsiung	Taiwan	鳳西國中 FXM	22.621	120.354

Date	Gnomon	Shadow	Angle
September 04	50 cm	14 cm	15.6 °
September 14	50 cm	18.23 cm	20 °

23 september 2015 (Kaohsiung-TAIWAN) Latitude: 22.62°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 2513 \text{ km}}{24^\circ - 0^\circ} = 37695 \text{ km}$$

Kuantan, Malaysia

September 2015

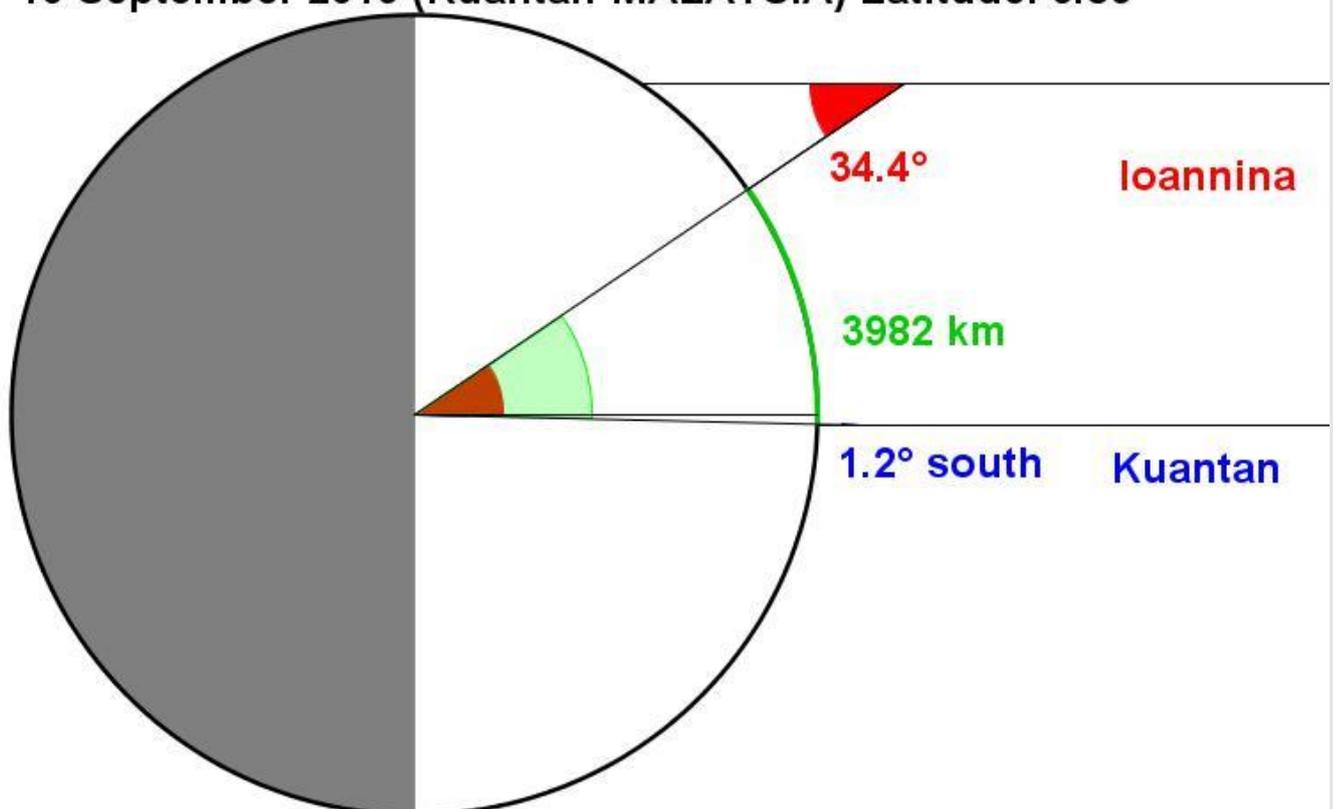


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Kuantan	Malaysia	SMK St Thomas	3.817	103.333

Date	Gnomon	Shadow	Angle
September 05	101 cm	-0.9 cm	-0.5 °
September 10	108 cm	-2.3 cm	-1.2 °

10 September 2015 (Ioannina-GREECE) Latitude: 39.67°

10 September 2015 (Kuantan-MALAYSIA) Latitude: 3.83°



$$\text{circumference} = \frac{360^\circ \times 3982 \text{ km}}{34.4^\circ + 1.2^\circ} = 40267 \text{ km}$$

Paysandú, Uruguay

September 2015

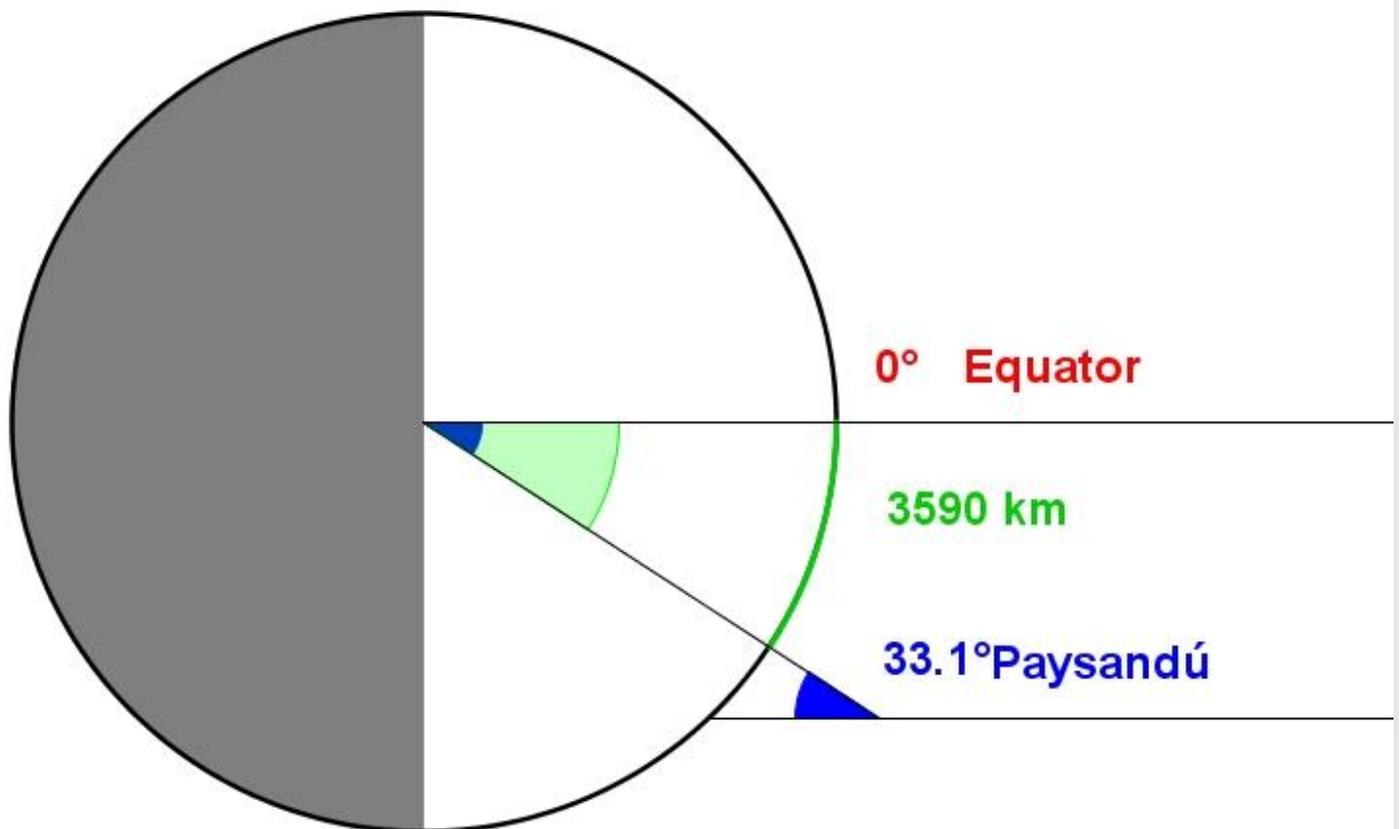


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Paysandú	Uruguay	Liceo N°1 de Paysandú	-32.316	-58.093

Date	Gnomon	Shadow	Angle
September 03	46 cm	-42 cm	-42.4 °
September 10	46 cm	-39 cm	-40.3 °
September 17	46 cm	-35 cm	-37.3 °
September 23	46 cm	-30 cm	-33.1 °

23 September 2015 (Equator-) Latitude: 0°

23 September 2015 (Paysandú-URUGUAY) Latitude: -32.32°



$$\text{circumference} = \frac{360^\circ \times 3590 \text{ km}}{0^\circ + 33.1^\circ} = 39045 \text{ km}$$

Rio de Janeiro CENOM, Brazil

September 2015

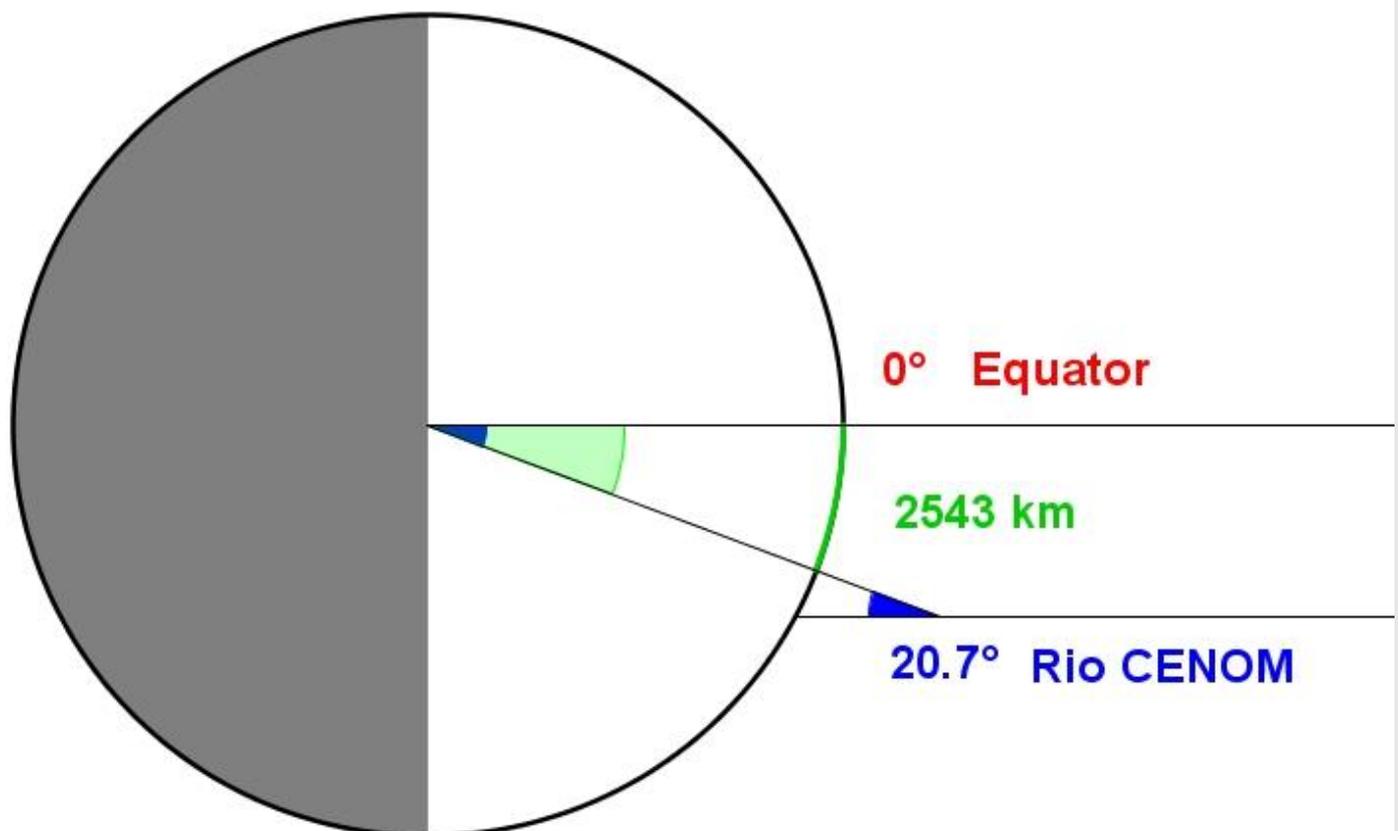


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	Centro Educacional Nosso Mundo	-22.890	-43.317

Date	Gnomon	Shadow	Angle
September 17	74 cm	-37 cm	-26.6 °
September 18	74 cm	-32 cm	-23.4 °
September 21	90 cm	-38 cm	-22.9 °
September 22	90 cm	-36.5 cm	-22.1 °
September 23	90 cm	-34 cm	-20.7 °
September 24	90 cm	-35 cm	-21.3 °
September 25	90 cm	-35 cm	-21.3 °

23 September 2015 (Equator-) Latitude: 0°

23 September 2015 (Rio CENOM-BRAZIL) Latitude: -22.89°



$$\text{circumference} = \frac{360^\circ \times 2543 \text{ km}}{0^\circ + 20.7^\circ} = 44226 \text{ km}$$

Rio de Janeiro PUC, Brazil

September 2015

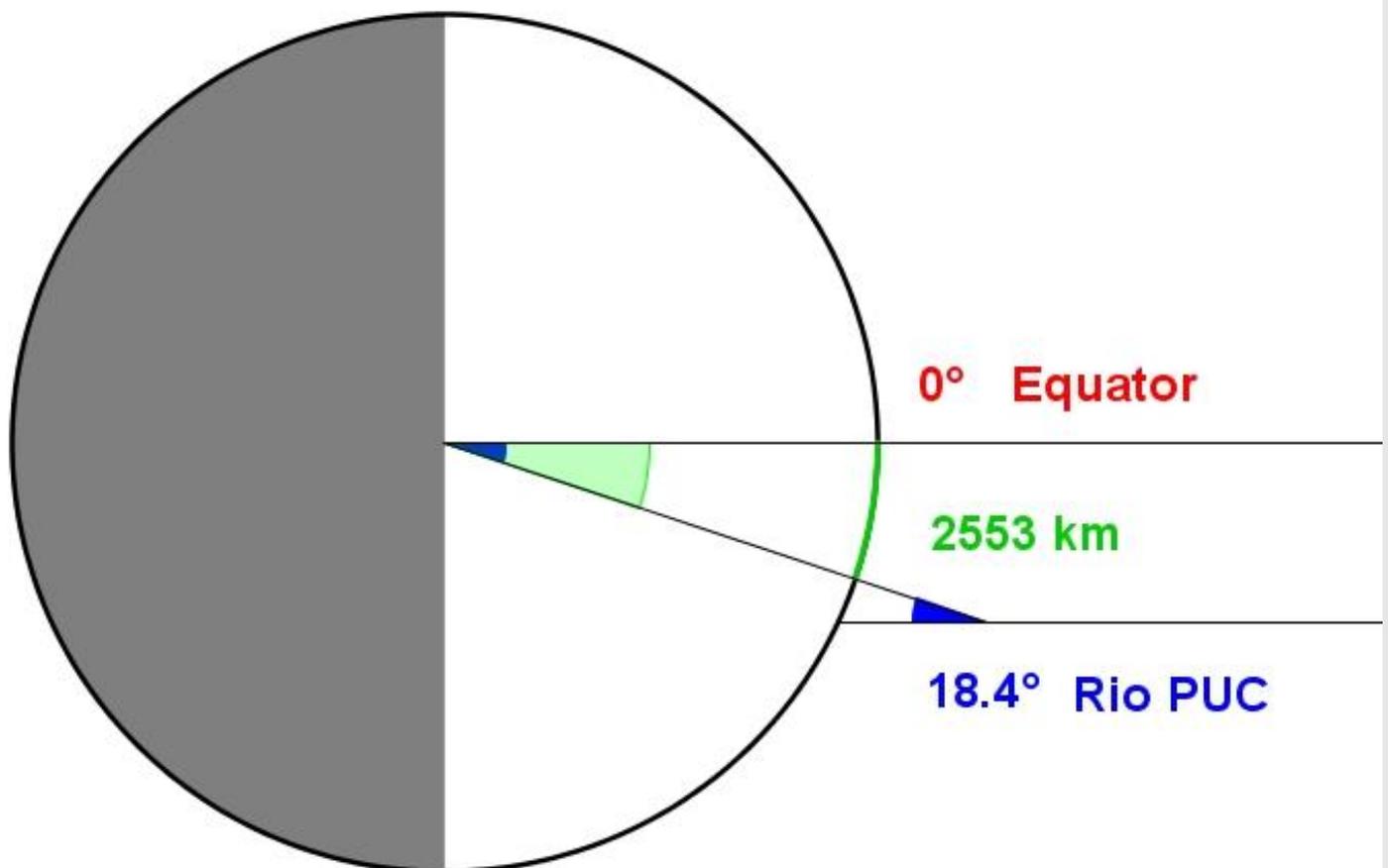


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	PUC Pontificia Universidade Catolica	-22.978	-43.230

Date	Gnomon	Shadow	Angle
September 19	18 cm	-6 cm	-18.4 °

23 September 2015 (Equator-) Latitude: 0°

19 September 2015 (Rio PUC-BRAZIL) Latitude: -22.98°



$$\text{circumference} = \frac{360^\circ \times 2553 \text{ km}}{0^\circ + 18.4^\circ} = 49950 \text{ km}$$

Rio de Janeiro VOE, Brazil

September 2015

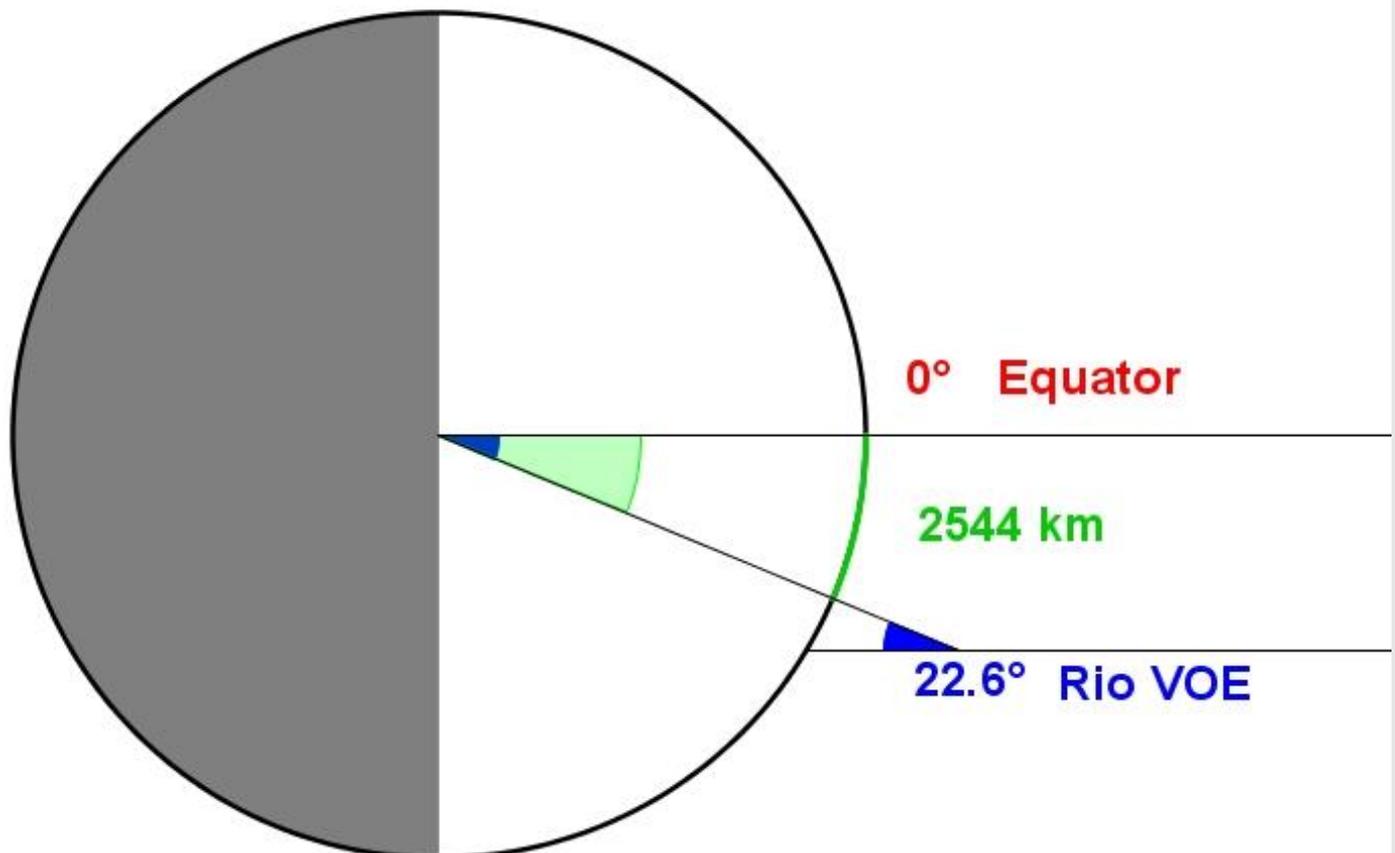


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Rio de Janeiro	Brazil	VOE Vila Olímpica do Encantado	-22.894	-43.300

Date	Gnomon	Shadow	Angle
September 26	18 cm	-8.7 cm	-22.6 °

23 September 2015 (Equator-) Latitude: 0°

26 September 2015 (Rio VOE-BRAZIL) Latitude: -22.89°



$$\text{circumference} = \frac{360^\circ \times 2544 \text{ km}}{0^\circ + 22.6^\circ} = 40524 \text{ km}$$

São João de Meriti, Brazil

September 2015

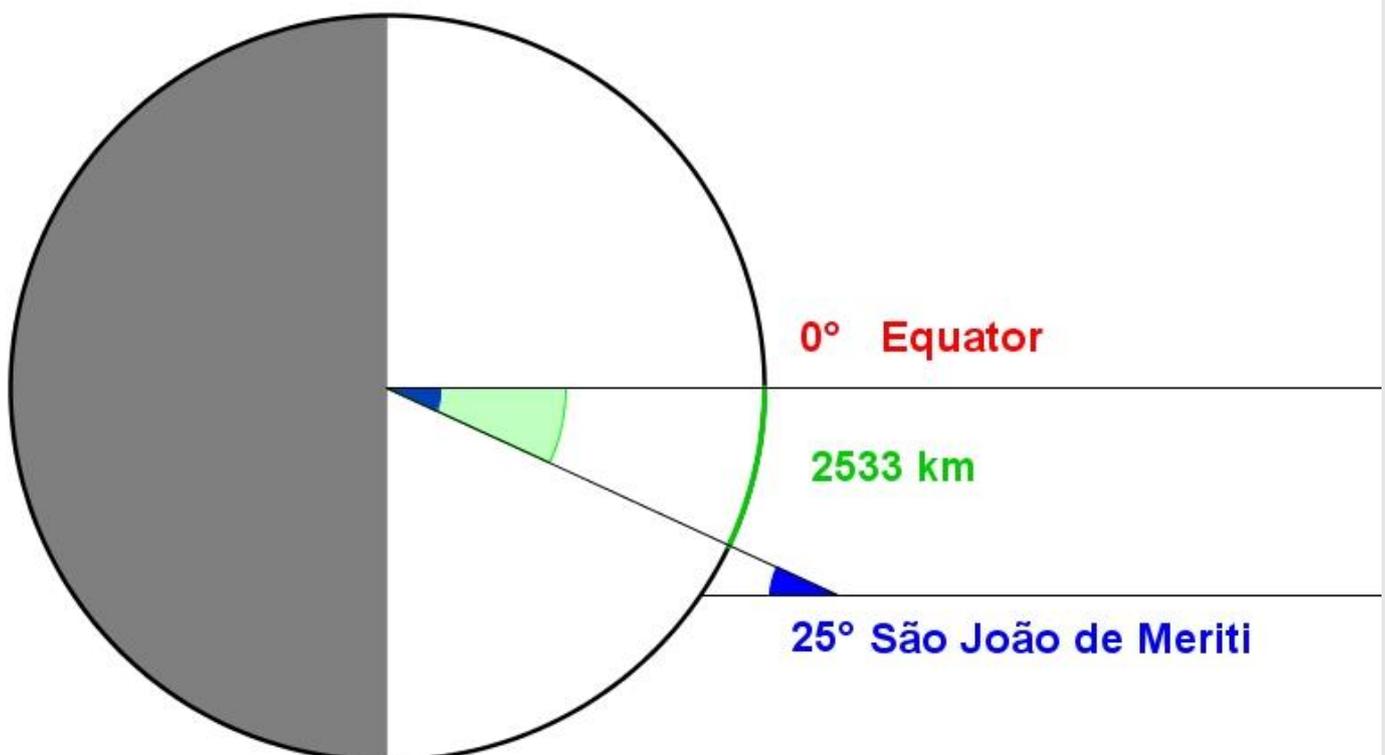


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	São João de Meriti	Brazil	31 Marechal Rondon	-22.800	-43.367

Date	Gnomon	Shadow	Angle
September 20	15 cm	-7 cm	-25 °

23 September 2015 (Equator-) Latitude: 0°

20 September 2015 (São João de Meriti-BRAZIL) Latitude: -22.8°



$$\text{circumference} = \frac{360^\circ \times 2533 \text{ km}}{0^\circ + 25^\circ} = 36475 \text{ km}$$

Shenzhen, China

September 2015

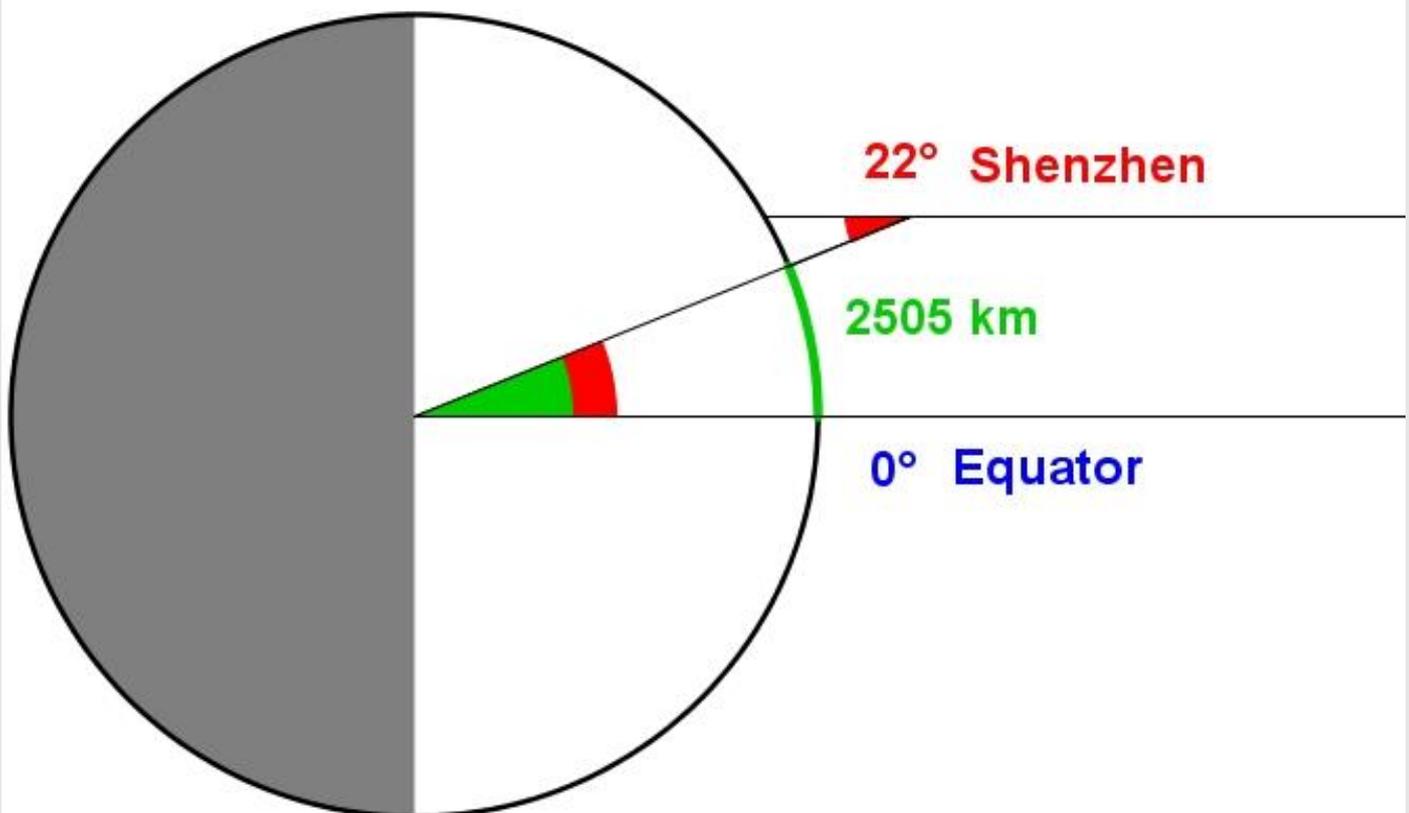


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Shenzhen	China	荔園小學南校區	22.549	114.092

Date	Gnomon	Shadow	Angle
September 18	50 cm	20 cm	21.8 °
September 22	50 cm	20.1 cm	21.9 °

23 september 2015 (Shenzhen-CHINA) Latitude: 22.55°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 2505 \text{ km}}{22^\circ - 0^\circ} = 40991 \text{ km}$$

Yamunanagar, India

September 2015

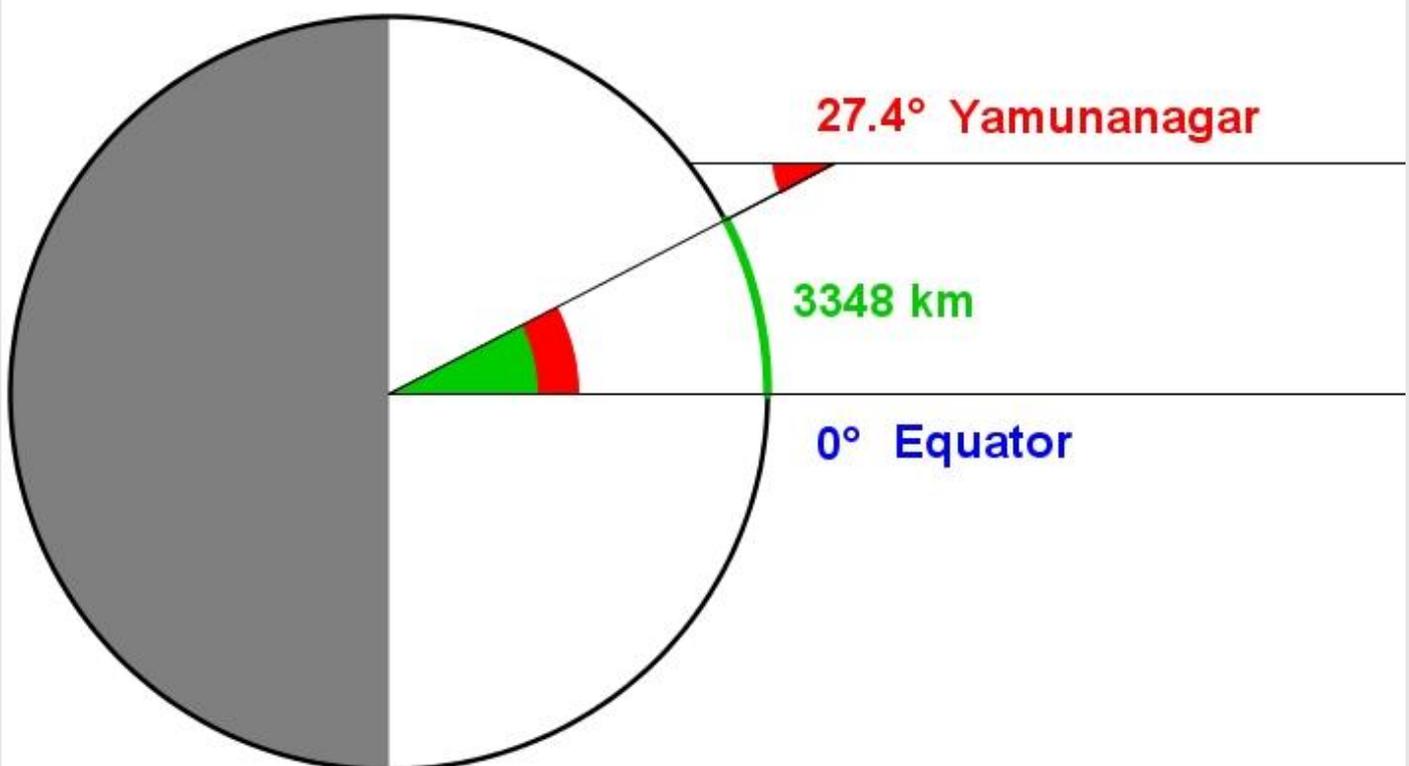


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Yamunanagar	India	C V Raman Science Club	30.117	77.250

Date	Gnomon	Shadow	Angle
September 23	27 cm	14 cm	27.4 °

23 september 2015 (Yamunanagar-INDIA) Latitude: 30.13°

23 september 2015 (Equator-) Latitude: 0°



$$\text{circumference} = \frac{360^\circ \times 3348 \text{ km}}{27.4^\circ - 0^\circ} = 43988 \text{ km}$$

Tunis, Tunisia

September 2015

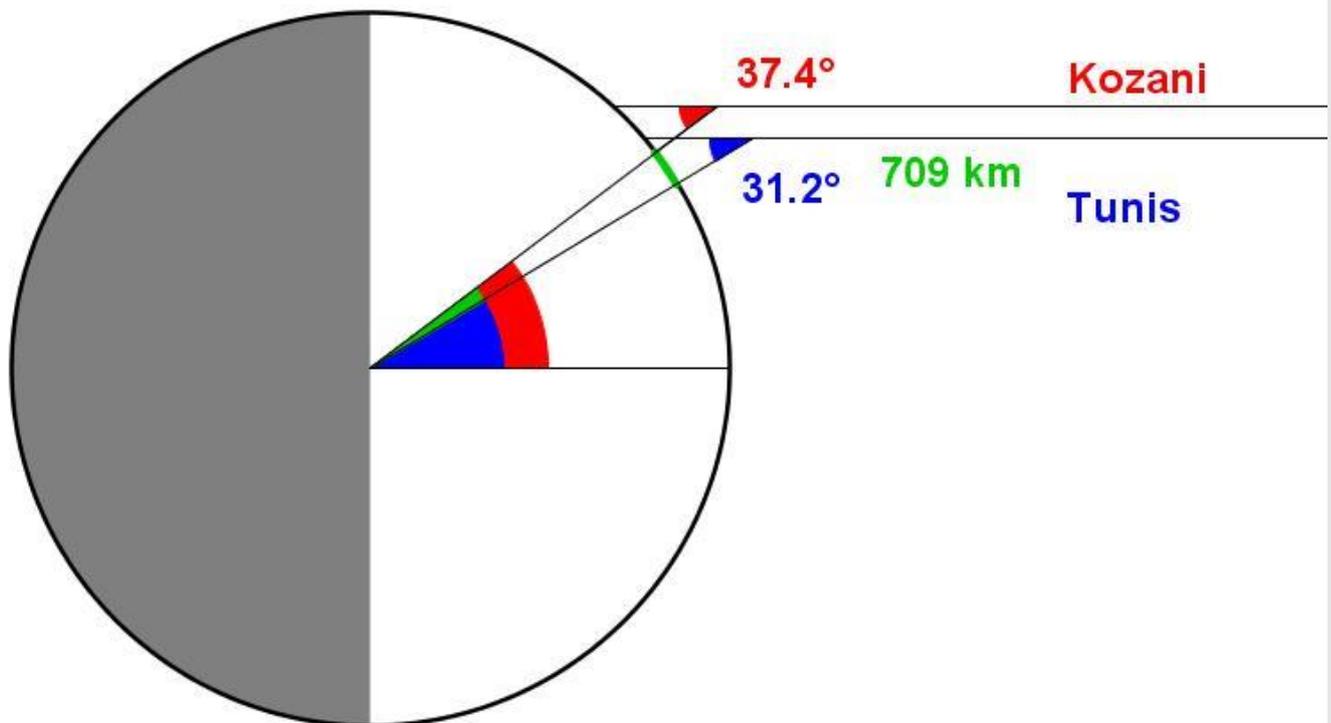


Flag	City	Country	School	Latitude (°) +N/-S	Longitude (°) +E/-W
	Tunis	Tunisia	Ecole primaire 16 Rue de Russie	36.795	10.177

Date	Gnomon	Shadow	Angle
September 11	94 cm	57 cm	31.2 °

11 September 2015 (Kozani-GREECE) Latitude: 40.27°

11 September 2015 (Tunis-TUNISIA) Latitude: 33.89°



$$\text{circumference} = \frac{360^\circ \times 709 \text{ km}}{37.4^\circ - 31.2^\circ} = 41168 \text{ km}$$

City	Country	School	Latitude (+N/-S) decimal(°)	Longitude (+E/-W) decimal(°)	Date	Gnomon height [cm]	Shadow length [cm]	Angle (°)
Durđevac	Croatia	High school Gimnazija Dr. Ivana Kranjčeva	46.039	17.066	23/9/2015	100.0	105.7	46.6
Pont St Martin	Italy	Istituzione Scolastica Monte Rosa A	45.601	7.795	23/9/2015	100.0	101.5	45.4
Mărgineni	Romania	Gh. Popescu School	44.533	24.554	23/9/2015	100.0	93.0	42.9
Busteni	Romania	Colegiul Ion Kalinderu	45.416	25.535	23/9/2017	100.0	96.8	44.1
Caracal	Romania	GH Magheru School	44.113	24.347	23/9/2015	100.0	91.0	42.3
Lafrançaise	France	Collège Perbosc	44.127	1.237	23/9/2015	estimated	angle	44.0
Donji Muc	Croatia	OS Knezna Branimira	43.694	16.462	23/9/2015	100.0	95.2	43.6
Nis	Serbia	Gymnazja Svetovar Markovic	43.312	21.887	23/9/2015	100.0	94.0	43.2
Supetar	Croatia	High school Brač	43.261	16.655	23/9/2015	99.5	94.3	43.5
Kavala	Greece	3rd Junior High School of Kavala	40.938	24.402	23/9/2015	100.0	87.0	41.0
Kozani	Greece	Junior High School of Krokos	40.265	21.815	23/9/2015	100.0	88.1	41.4
Grevena	Greece	2nd primary school of Grevena Greece	40.086	21.424	23/9/2015	100.0	83.0	39.7
Ioannina	Greece	College Pilot Zosimaias Scholis	39.667	20.850	23/9/2015	100.0	81.9	39.3
Aigio	Greece	1st Junior High School	38.252	22.079	23/9/2015	86.0	68.0	38.3
Athens I	Greece	3rd Junior High School of Ilion	38.037	23.712	23/9/2015	100.0	79.0	38.3
Petroupoli	Greece	4th Junior High School	38.036	23.674	23/9/2015	119.0	92.8	37.9
Athens A	Greece	Peiramatiko gymnasio agion anargyron	38.027	23.821	23/9/2015	49.0	37.5	37.4
Ubeba	Spain	Collegio Salesiano Santo Domingo Savio	38.017	-3.367	23/9/2015	106.8	83.0	37.9
Pastida	Greece	Primary School of Pastida	36.385	28.138	23/9/2015	33.5	25.9	37.7
Lardos	Greece	Junior High School of Krokos	36.093	28.012	23/9/2015	90.0	62.4	34.7
Chania	Greece	DDMN Hellenic Navy Logistic Command	35.485	24.082	23/9/2015	100.0	77.0	37.6
Yamunanagar	India	C V RAMAN SCIENCE CLUB	30.133	77.283	23/9/2015	27.0	14.0	27.4
Baghpat	India	Dhanaura Silver Nagar Inter college	28.937	77.218	23/9/2015	33.0	18.0	28.6
Kaohsiung	Taiwan	鳳西國中 FXM	22.621	120.354	23/9/2015	estimated	angle	24.0
Shenzhen	China	荔園小學南校區	22.549	114.092	23/9/2015	estimated	angle	22.0
Equator			0.000	0.000	23/9/2015	100.0	0.0	0.0
Rio de Janeiro	Brazil	CENOM Centro Educacional Nosso Mundo	-22.890	-43.317	23/9/2015	90.0	-34.0	-20.7
Anisacate	Argentina	Fundación Caminos de Anisacate	-31.717	-64.400	23/9/2015	estimated	angle	-32.0
Paysandú	Uruguay	Liceo N° 1 de Paysandú	-32.316	-58.093	23/9/2015	46.0	-30.0	-33.1

