

Where is the sun and the moon ?

[MoonCalc - moon phase, lunar eclipse, moon position, lunar calendar, moon calculator, moon calendar, map, moon rising, moonset, moon shadow, moon height, full moon, new moon](#)

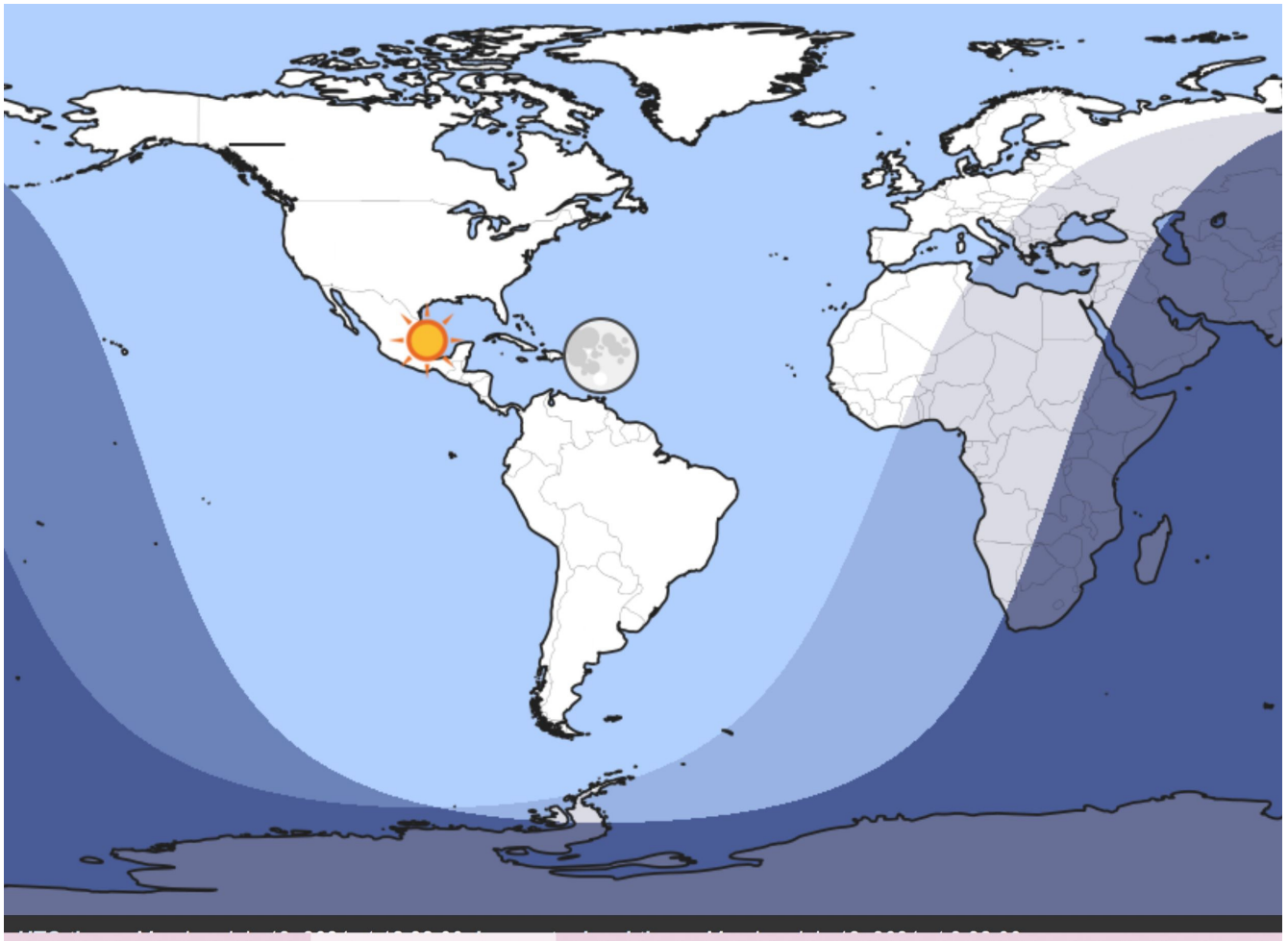
<https://www.mooncalc.org>

This shows my view from my home. Using the moon light map.

I pick a time and see the angle to the moon from the ground

then I get a picture of what it looks like below.

<https://www.timeanddate.com/astronomy/moon/light.html>



Next I see where is the moon at it's zenith over the place

Locations with the Moon near zenith

The following table shows 10 locations with moon near zenith position in the sky.


Location	Local Time	Distance			Direction
Codrington (Barbuda)	Mon 2:28 pm	123 km	77 miles	67 nm	↙ SSW
Gustavia	Mon 2:28 pm	172 km	107 miles	93 nm	↙ WSW
The Valley	Mon 2:28 pm	178 km	111 miles	96 nm	↙ WSW
Saint John's (Antigua)	Mon 2:28 pm	180 km	112 miles	97 nm	↙ SSW
Philipsburg	Mon 2:28 pm	184 km	114 miles	99 nm	↙ WSW
Marigot	Mon 2:28 pm	186 km	115 miles	100 nm	↙ WSW
Basseterre (St. Kitts)	Mon 2:28 pm	205 km	127 miles	111 nm	↙ SW
Oranjestad	Mon 2:28 pm	210 km	130 miles	113 nm	↙ SW
Charlestown	Mon 2:28 pm	213 km	132 miles	115 nm	↙ SW
The Bottom	Mon 2:28 pm	224 km	139 miles	121 nm	↙ WSW

 Need some help?

Antigua, Barbuda, Barbados, Belize, Bolivia, Brazil, Brunei, Bulgaria, Cambodia, Cameroon, Canada, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Costa Rica, Cote d'Ivoire, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Finland, France, Gabon, Gambia, Germany, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea-Bissau, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Mauritius, Mexico, Micronesia, Moldova, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Russia, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marino, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, Sudan, Suriname, Sweden, Switzerland, Taiwan, Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Wales, West Bank, Yemen, Zambia, Zimbabwe

So I pick [St Kitts](#) and look at the map to see how far away it is from me.

<https://www.gps-coordinates.net/distance>

 **Current Local Time in** [Charlestown, Saint Kitts and Nevis](#)


Time/General

Weather ▾

Time Zone

DST Changes

Sun & Moon ▾



2:36:00 pm AST
Monday, July 12, 2021
[Fullscreen](#)

Country: Saint Kitts and Nevis


Lat/Long: 17°08'N / 62°38'W

Elevation: 10m


Currency: East Caribbean Dollar (XCD)

Languages: English

Dial Codes: +1 - [See how to dial](#)




Weather




I look a a map like this and see the distance.

Click on the  button to use your geolocation instead of manually entering an address.

First location

unnamed road, Fairfield County, OH 43130, 

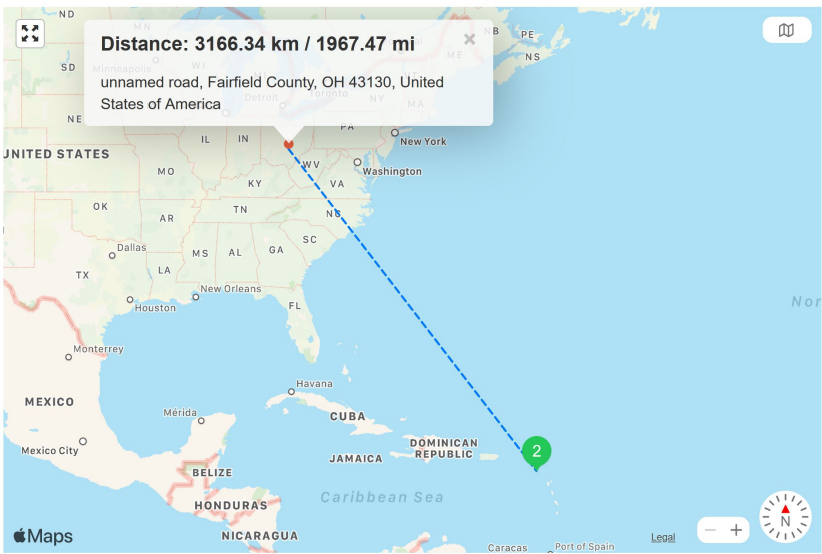
Second location

Charlestown, Saint Kitts and Nevis 

Calculate the distance

Distance: 3166.34 km / 1967.47 mi

* World Geodetic System 84 (WGS 84)



as the angle unit, it can take values such as $\pi/3$, $\pi/4$, etc.

Result

Given $b=1967.47$ and $\angle\alpha=62.09^\circ$,

$a = 3,714.33644$

$c = 4,203.24082$

$\angle\beta = 27.91^\circ = 27^\circ54'36'' = 0.48712 \text{ rad}$

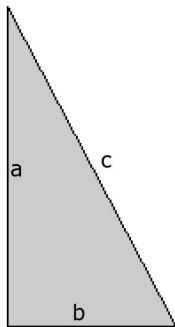
$h = 1,738.62166$

area = 3,653,922.75748

perimeter = 9,885.04726

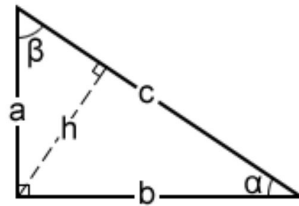
inradius = 739.28281 [?]

circumradius = 2,101.62041 [?]



[+ Show Calculation Steps](#)

a =	<input type="text"/>	$\angle\alpha =$	<input type="text" value="62.09"/>	<input type="text" value="degree"/>
b =	<input type="text" value="1967.47"/>	$\angle\beta =$	<input type="text"/>	<input type="text" value="degree"/>
c =	<input type="text"/>	h =	<input type="text"/>	
A =	<input type="text"/>	area		
P =	<input type="text"/>	perimeter		



Last we do the basic trig and see the solved triangle made from where I stand.

So what is the height of the moon at observation ... 3 7 14 miles !!!

no thousands or millions !!!!

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Week 21 2021