

There are some boo-boos on pp. 3 and 6. See comments. Pretty good! 7 1/2 / 8

Tahm – PS 7 – 2025-02-11

EIWL3 Sections 18 and 19

I had repeated issues with timeouts when downloading GeoGraphics. Because of that, I did not re-execute your PS7 notebooks like I usually do (to check for errors upon re-execution). Instead, I just PDF'd them the way that you gave them to me.

Chapter 18

```
In[•]:= GeoDistance[New York City CITY, London CITY]
Out[•]= 3453.71 mi

In[•]:= GeoDistance[New York City CITY, London CITY]/GeoDistance[New York City CITY, San Francisco CITY]
Out[•]= 1.35109

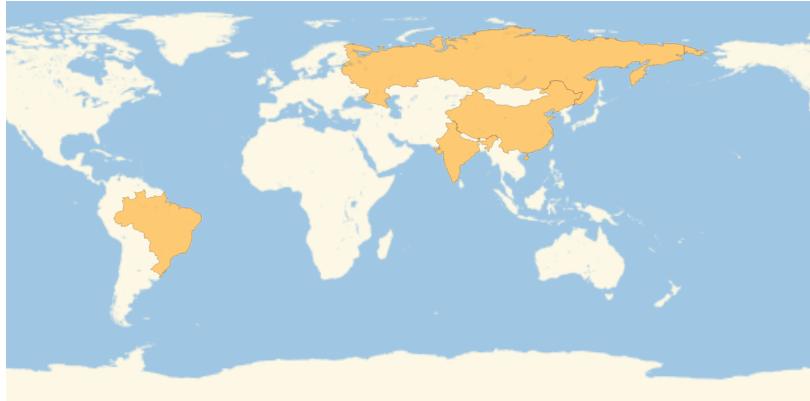
In[•]:= UnitConvert[GeoDistance[New York City CITY, London CITY], km]
Out[•]= 5558.2 km

In[•]:= GeoGraphics[United States COUNTRY]
```



```
In[•]:= GeoListPlot[{Brazil COUNTRY, Russia COUNTRY, India COUNTRY, China COUNTRY}]
```

```
Out[•]=
```



```
In[•]:= GeoGraphics[GeoPath[{New York City CITY, Beijing CITY}]]
```

GeoServer: Unable to download one or more vector tiles.

```
Out[•]=
```

This is the timeout issue I mentioned.

You have a bug here. The problem is that you have found “Pyramids” plural, not the pyramid you are looking for.

```
In[•]:= GeoGraphics[GeoDisk[GeoPosition[{Egyptian Pyramids of Giza BUILDINGS}], 10 mi]]
```

GeoDisk: GeoPosition[Number of points: 8 Dimensions: {1, 8}] is not a valid center location.

Out[•]=



```
In[•]:= GeoGraphics[GeoDisk[New York City CITY, GeoDistance[New York City CITY, San Francisco CITY]]]]
```

GeoServer: Unable to download one or more vector tiles.

Out[•]=

Same timeout issue. I resolved it in my solution by choosing the second city to be nearer to New York.

In[•]:= GeoImage[GeoDisk["The Pentagon BUILDING", 0.4 mi]]

Out[•]=



In[•]:= GeoNearest["Country", GeoPosition["NorthPole"], 5]

In[•]:= {Greenland COUNTRY, Canada COUNTRY, Russia COUNTRY, Svalbard COUNTRY, United States COUNTRY}

Out[•]=

{Greenland, Canada, Russia, Svalbard, United States}

In[•]:= EntityValue[GeoNearest["Country", GeoPosition[{45, 0}], 3], "Flag"]

Out[•]=



```
In[1]:= GeoListPlot[GeoNearest["Volcano", Rome CITY, 25]]
```

Out[1]=



```
In[2]:= GeoPosition[New York City CITY][1, 1] - GeoPosition[Los Angeles CITY][1, 1]
```

Out[2]=

6.64488

This works, but you lost the unit (degrees) and it is clumsy.
See how I used EntityValue[] in my solution.

Chapter 19

```
In[1]:= Length[DayRange[Mon 1 Jan 1900, Now]]
```

Out[1]=

45 698

```
In[2]:= DayName[Mon 1 Jan 1900]
```

Out[2]=

Monday

```
In[3]:= Today - 100 000 yr
```

Out[3]=

Tue 11 Feb 97976 BC

In[•]:= LocalTime[Delhi CITY]

Out[•]=

Tue 11 Feb 2025 20:59:46 GMT+5.5

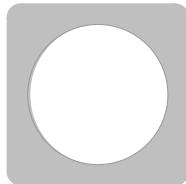
In[•]:= Sunset[Minneapolis CITY, Today] - Sunrise[Minneapolis CITY, Today]

Out[•]=

10.2741 h

In[•]:= MoonPhase[Today, "Icon"]

Out[•]=



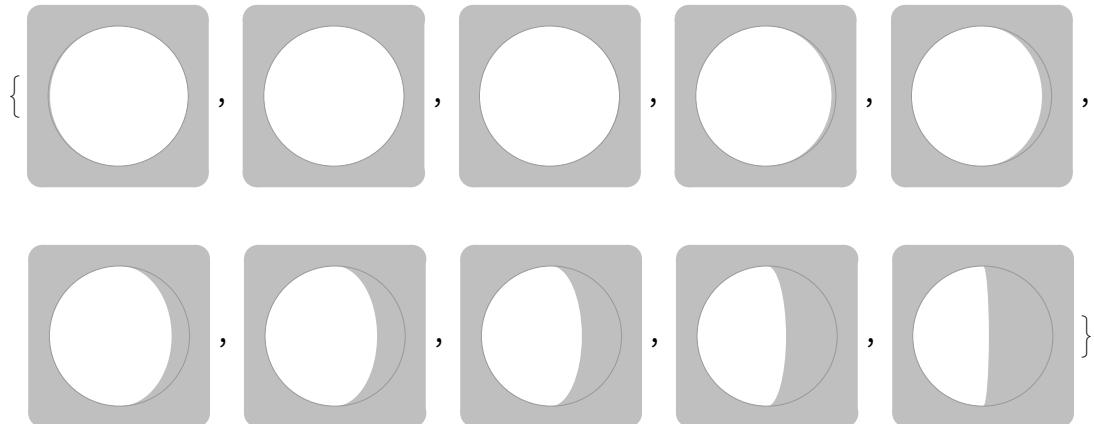
In[•]:= Table[MoonPhase[Today + x days], {x, 0, 9, 1}]

Out[•]=

{0.982229, 0.998567, 0.994059, 0.970017,
0.928388, 0.871492, 0.801795, 0.721766, 0.633831, 0.540416}

In[•]:= Table[MoonPhase[Today + x days, "Icon"], {x, 0, 9, 1}]

Out[•]=



In[•]:= Sunrise[New York City CITY] - Sunrise[London CITY]

Out[•]=

4.55435 h

This is messed up. Sunrise occurs later than sunset right?
See p. 8 of my solution to understand what is going on.

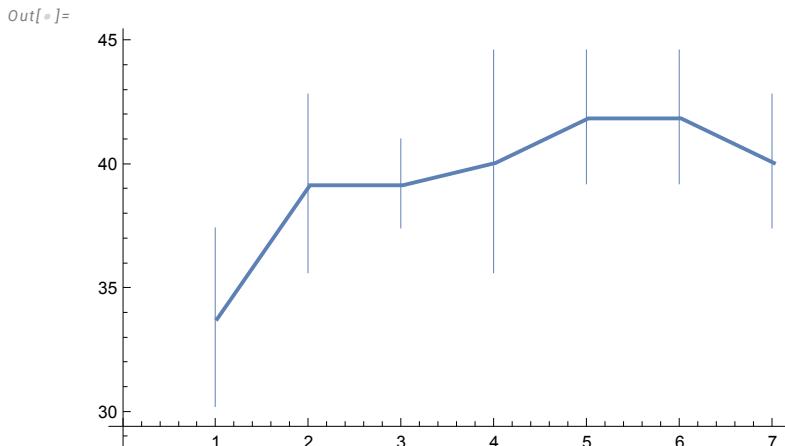
In[•]:= UnitConvert[Now - DateObject[Apollo 11 MANNED SPACE MISSION [lunar landing date]], "Years"]

Out[•]=

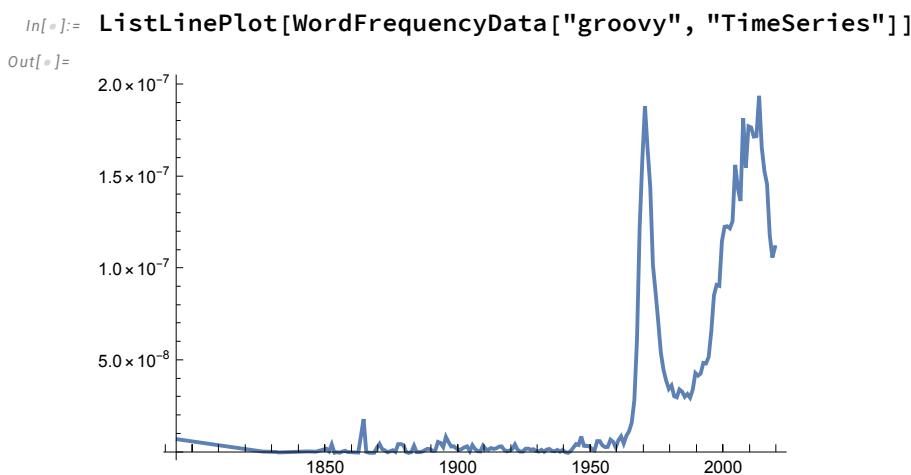
55.6022 yr

```
In[1]:= AirTemperatureData[Paris CITY, Mon 10 Feb 2025 12:00:00 GMT-7]
Out[1]= 41. °F

In[2]:= ListLinePlot[
  Table[AirTemperatureData[Eiffel Tower BUILDING, Tue 4 Feb 2025 + x days], {x, 0, 6}]]
```



```
In[3]:= AirTemperatureData[New York City CITY] - AirTemperatureData[Los Angeles CITY]
Out[3]= -20.2 ° F
```



```
In[5]:= United Kingdom COUNTRY [Dated["Population", 2000]] -
United Kingdom COUNTRY [Dated["Population", 1900]]
Out[5]= 20 759 628 people
```

