Some issues on pp. 2 and 11. Also a minor comment worth noting on p. 8.

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Eli — PS 9 — 2025-02-21

In[147]:=

```
N[Sqrt[2], 500]
```

Out[147]=

```
1.41421356237309504880168872420969807856967187537694807317667973799073247846210703
 88503875343276415727350138462309122970249248360558507372126441214970999358314132
 22266592750559275579995050115278206057147010955997160597027453459686201472851741
 86408891986095523292304843087143214508397626036279952514079896872533965463318088
 29640620615258352395054745750287759961729835575220337531857011354374603408498847
 16038689997069900481503054402779031645424782306849293691862158057846311159666871
 30130156185689872372
```

In[148]:=

```
RandomReal[1, 10]
```

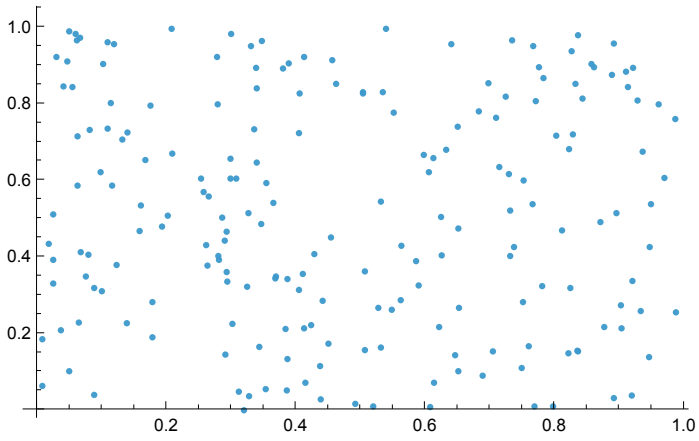
Out[148]=

```
{0.216962, 0.718348, 0.20062, 0.137805,
 0.652779, 0.251211, 0.294341, 0.666961, 0.503411, 0.430444}
```

In[149]:=

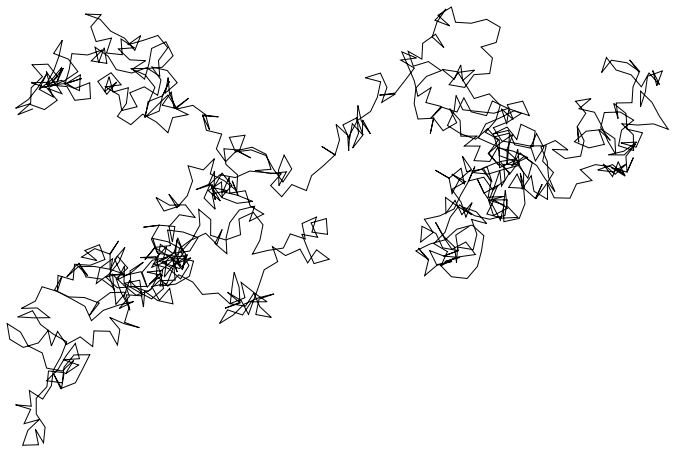
```
ListPlot[Transpose[{RandomReal[1, 200], RandomReal[1, 200]}]]
```

Out[149]=



In[150]:=
```
Graphics[Line[AnglePath[RandomReal[2 Pi, 1000]]]]
```

Out[150]=



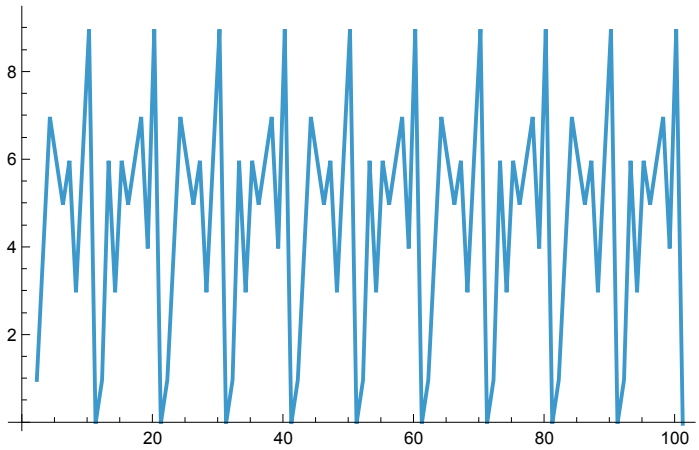
In[151]:=
```
Table[Mod[n^2, 10], {n, 0, 30}]
```

Out[151]=
```
{0, 1, 4, 9, 6, 5, 6, 9, 4, 1, 0, 1, 4, 9, 6, 5, 6, 9, 4, 1, 0, 1, 4, 9, 6, 5, 6, 9, 4, 1, 0}
```

In[152]:=
```
ListLinePlot[Table[Mod[n^n, 10], {n, 0, 100}]]
```

Power: Indeterminate expression 0^0 encountered.

Out[152]=



In[153]:=
```
Table[N[Pi^n, 1], {n, 10}]
```

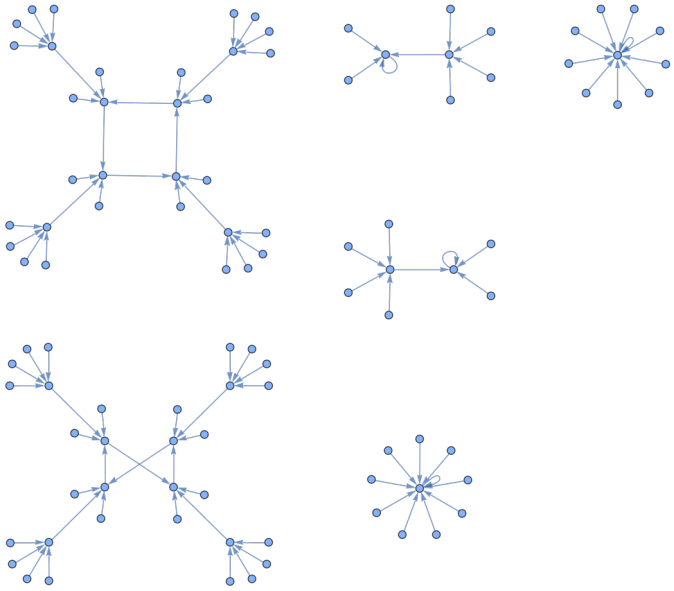
Out[153]=
```
{3., 1.×10^1, 3.×10^1, 1.×10^2, 3.×10^2, 1.×10^3, 3.×10^3, 9.×10^3, 3.×10^4, 9.×10^4}
```

Oh my, you rounded to 1 sig fig! Make sure you know how to use the Round[] function which is what he was expecting you would use.

In[154]:=

```
Graph[Table[n → Mod[n^2, 100] , {n, 0, 99}]]
```

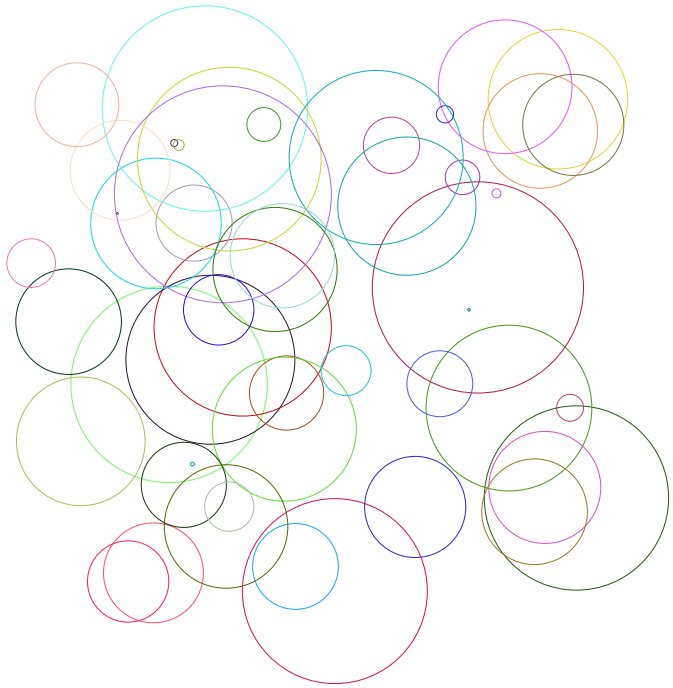
Out[154]=



In[155]:=

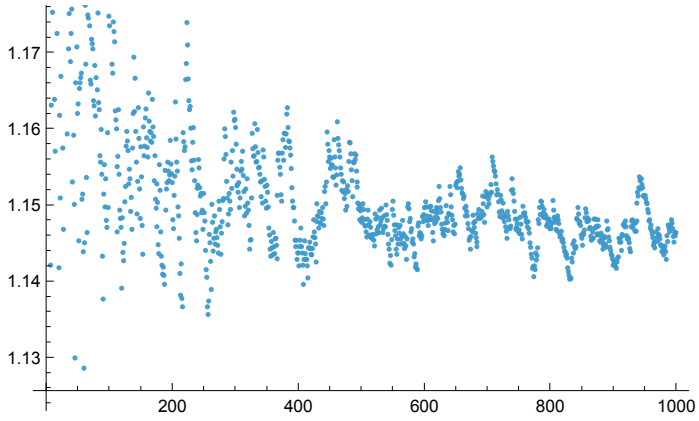
```
Graphics[
 Table[Style[Circle[{RandomReal[10, 2]}, RandomReal[2]], RandomColor[]], 50]]
```

Out[155]=



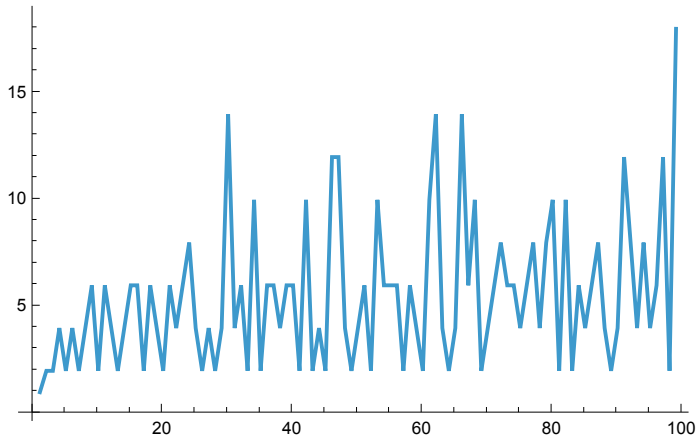
In[156]:=
```
ListPlot[Table[Prime[n] / (n Log[n]), {n, 2, 1000}]]
```

Out[156]=



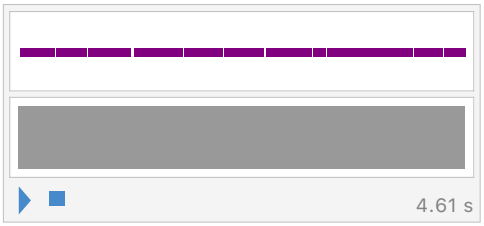
In[157]:=
```
ListLinePlot[Table[Prime[n] - Prime[n - 1], {n, 2, 100}]]
```

Out[157]=



In[158]:=
```
Sound[Table[SoundNote["C", RandomReal[0.5]], 20]]
```

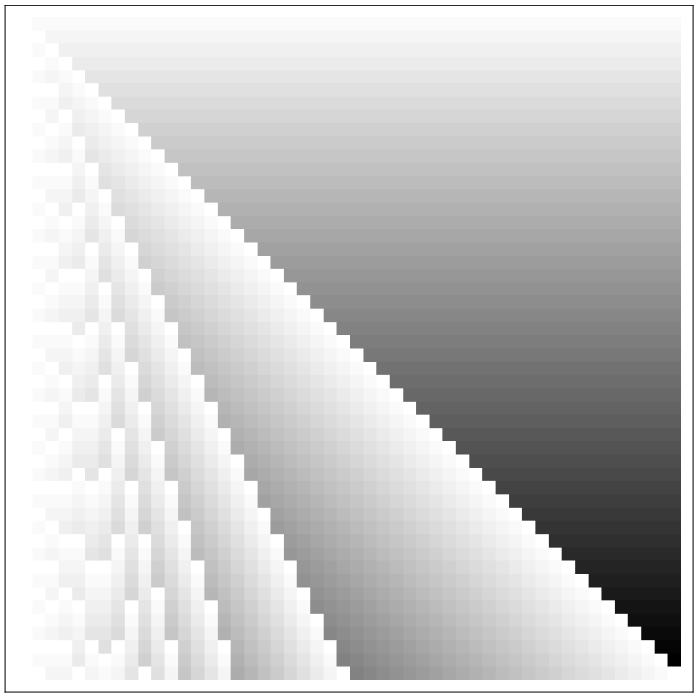
Out[158]=



In[159]:=

```
ArrayPlot[Table[Mod[i, j], {i, 50}, {j, 50}]]
```

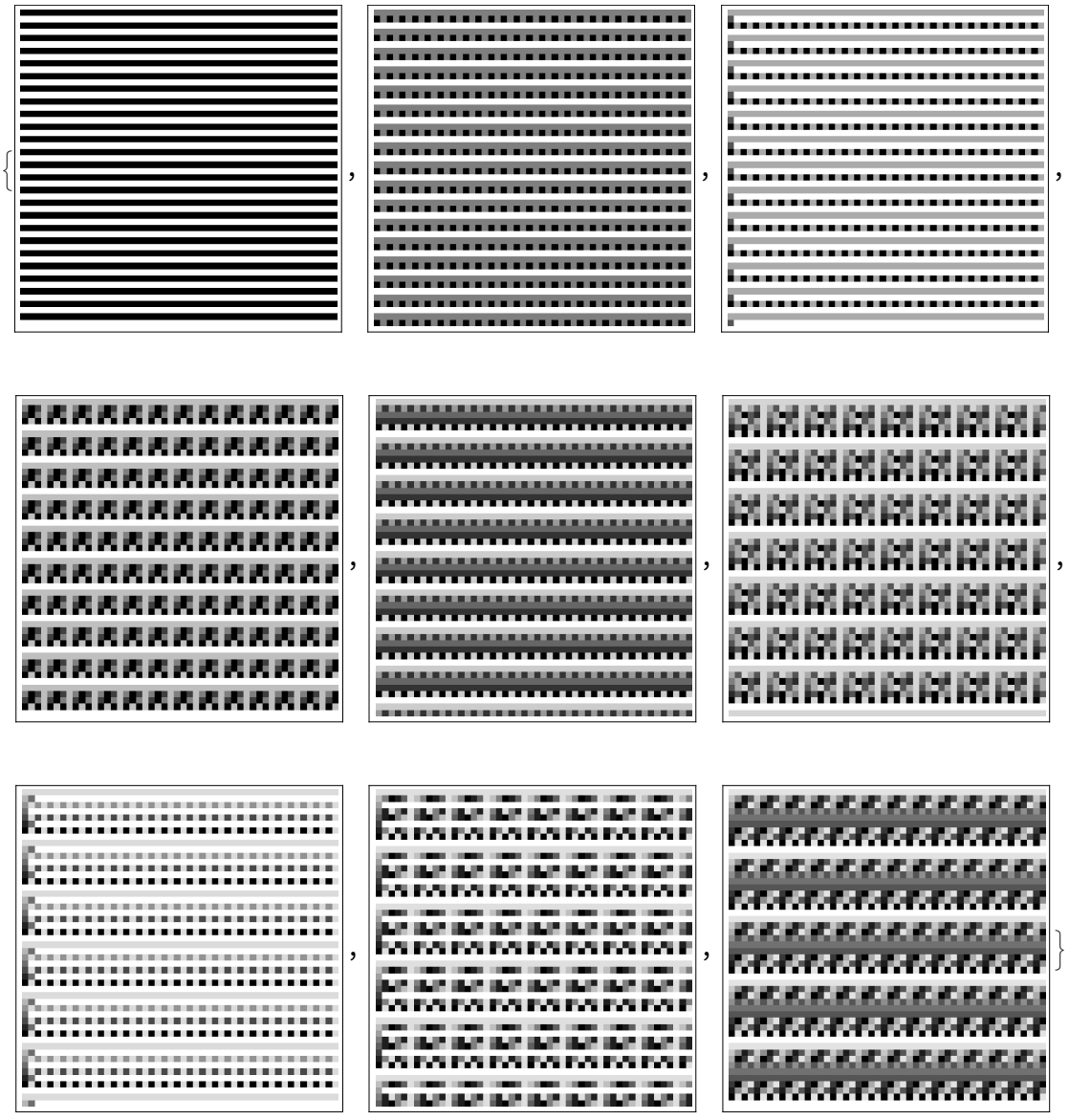
Out[159]=



In[160]:=

```
Table[ArrayPlot[Table[Mod[x^y, n], {x, 50}, {y, 50}]], {n, 2, 10}]
```

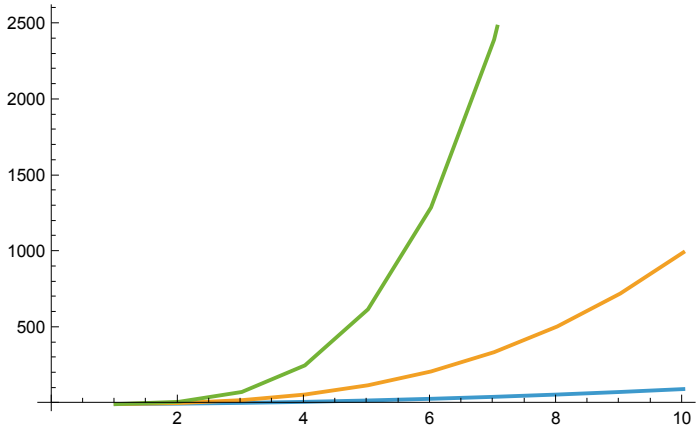
Out[160]=



Chapter 24

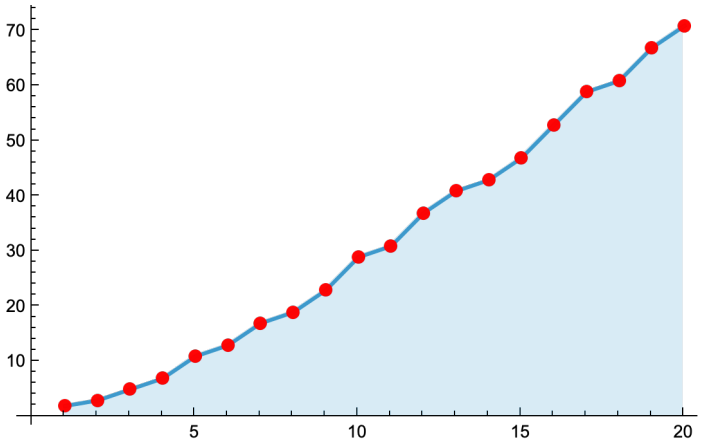
In[161]:=
```
ListLinePlot[{Range[10]^2, Range[10]^3, Range[10]^4}]
```

Out[161]=



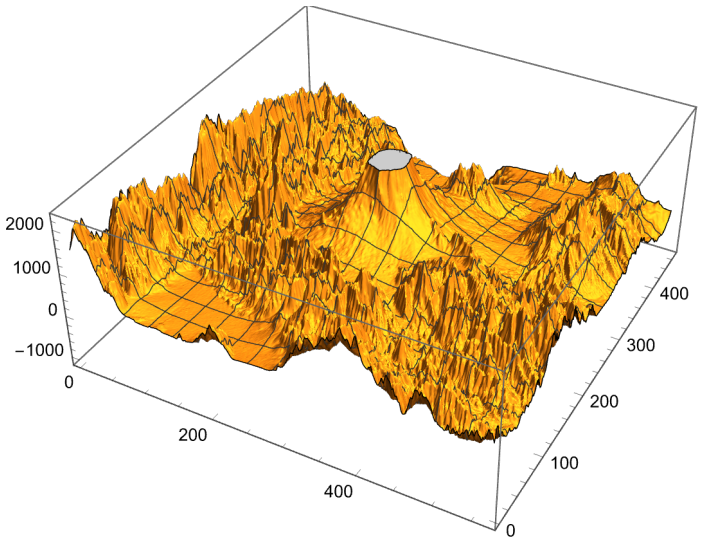
In[162]:=
```
ListLinePlot[Table[Prime[n], {n, 20}], Mesh → All, MeshStyle → Red, Filling → Axis]
```

Out[162]=



In[163]:=
```
ListPlot3D[GeoElevationData[GeoDisk[ Mount Fuji MOUNTAIN , 20 mi ]]]
```

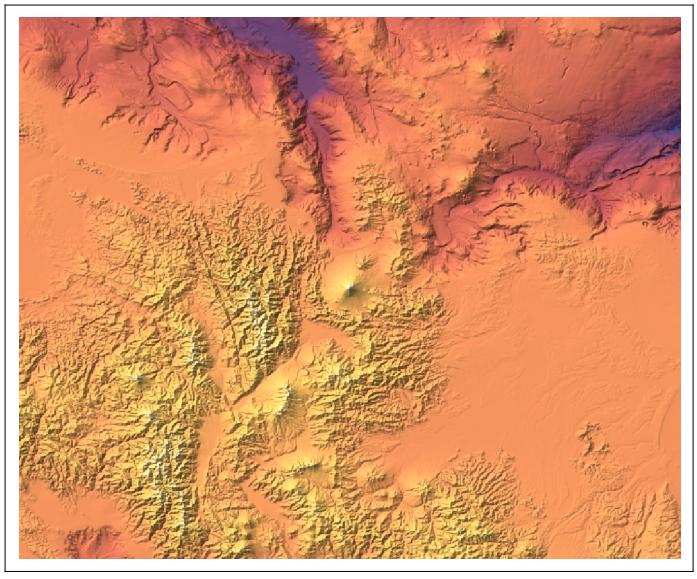
Out[163]=



Mt. Fuji isn't beheaded
if you use PlotRange->All.

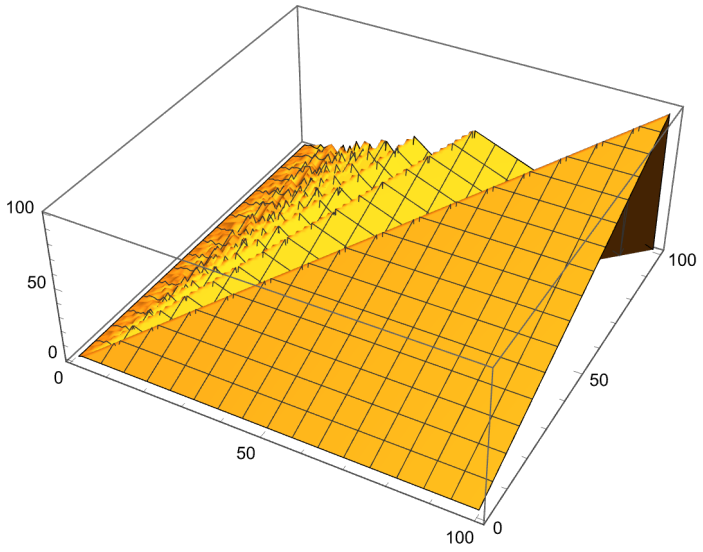
In[164]:=
```
ReliefPlot[GeoElevationData[ GeoDisk[ Mount Fuji MOUNTAIN , 100 mi ]]]
```

Out[164]=



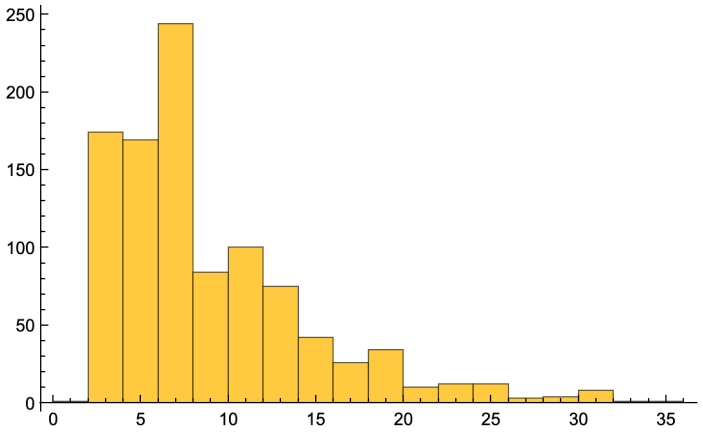
In[165]:=
```
ListPlot3D[Table[Mod[i, j], {i, 100}, {j, 100}]]
```

Out[165]=



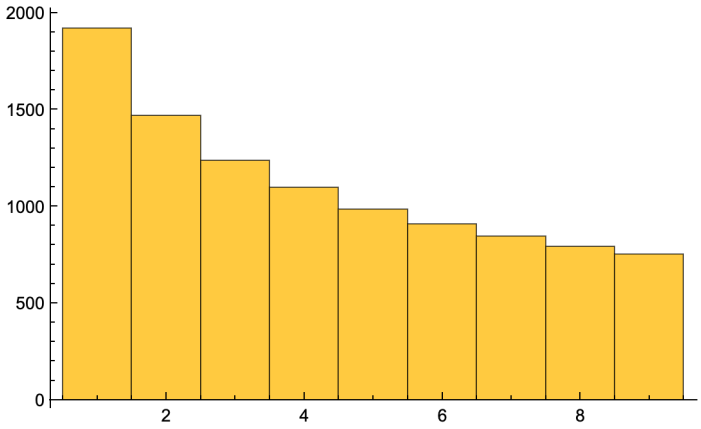
In[166]:=
```
Histogram[Table[Prime[n + 1] - Prime[n], {n, 1000}]]
```

Out[166]=



In[167]:=
```
Histogram[Table[IntegerDigits[n^2][[1]], {n, 10000}]]
```

Out[167]=

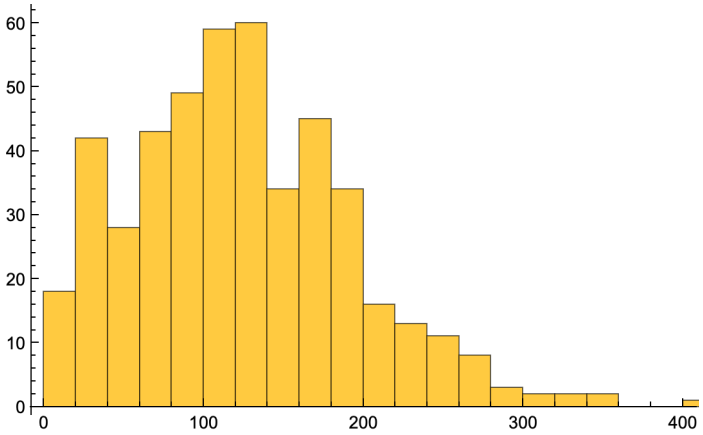


In[168]:=
```
Histogram[Table[Length[Characters[RomanNumeral[n]]], {n, 1000}]]
```

Out[168]=

In[169]:=
```
Histogram[StringLength[TextSentences[WikipediaData["computers"]]]]
```

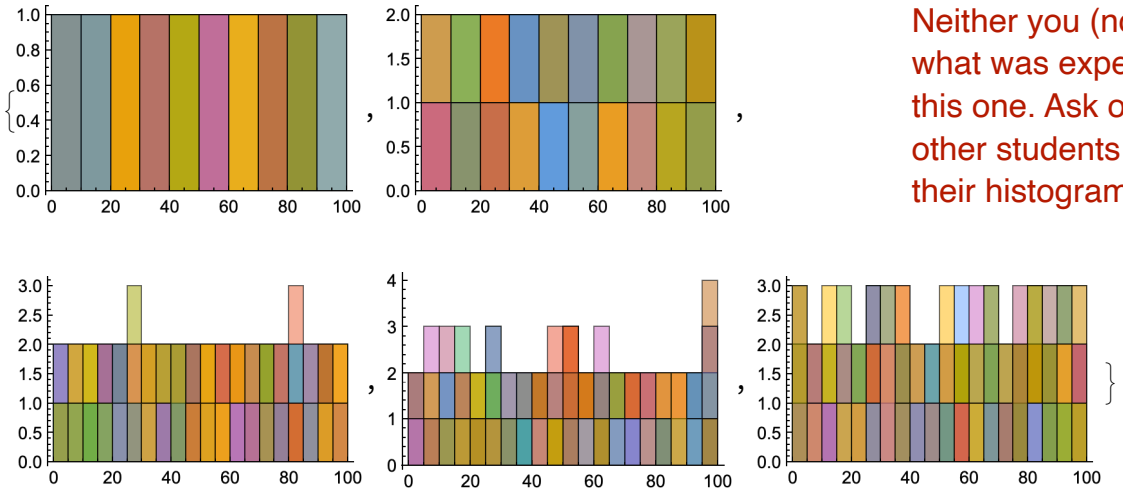
Out[169]=



In[170]:=

```
Table[Histogram[Table[Plus[RandomReal[100, n]], 1000]], {n, 1, 5}]
```

Out[170]=

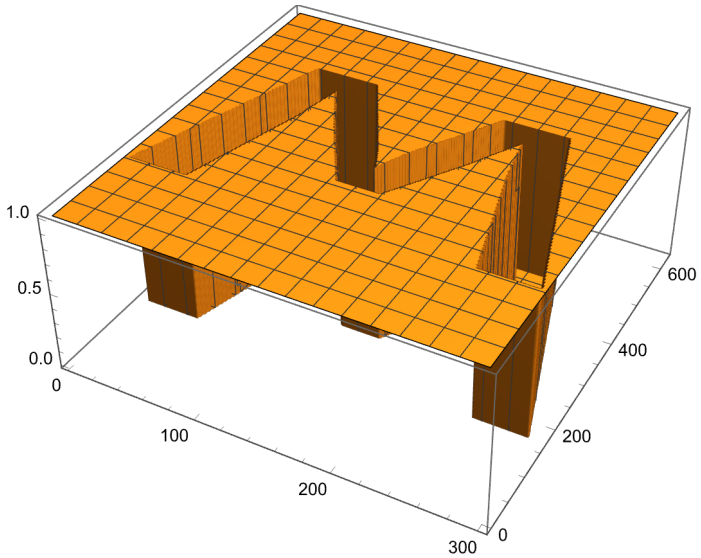


Neither you (nor I) did what was expected on this one. Ask one of the other students to show you their histograms.

In[171]:=

```
ListPlot3D[ImageData[Binarize[Rasterize[Style["W", 200]]]]]
```

Out[171]=



Chapter 25

In[172]:=

```
f /@ Range[5]
```

Out[172]=

```
{f[1], f[2], f[3], f[4], f[5]}
```

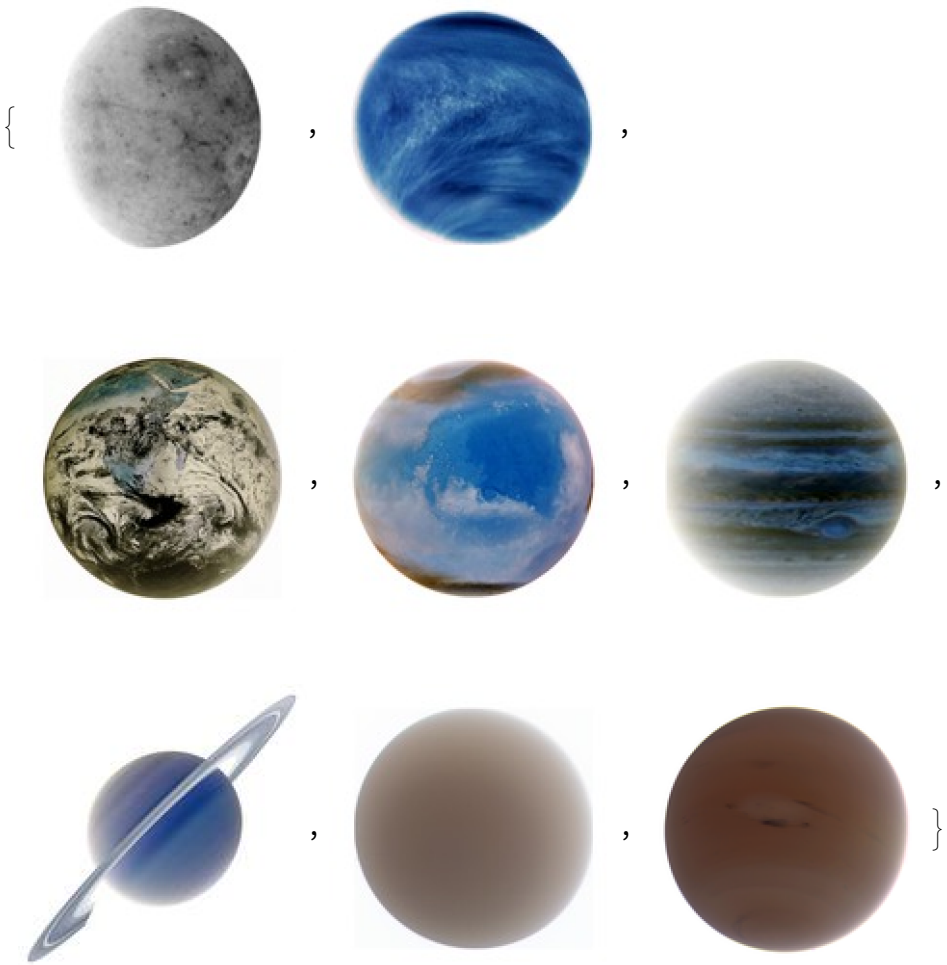
In[173]:=
```
f /@ g /@ Range[10]
```
Out[173]=
```
{f[g[1]], f[g[2]], f[g[3]], f[g[4]],
 f[g[5]], f[g[6]], f[g[7]], f[g[8]], f[g[9]], f[g[10]]}
```

In[174]:=
```
x // d // c // b // a
```
Out[174]=
```
a[b[c[d[x]]]]
```

In[175]:=
```
Framed /@ Alphabet[]
```
Out[175]=

{[a], [b], [c], [d], [e], [f], [g], [h], [i], [j], [k], [l],
 [m], [n], [o], [p], [q], [r], [s], [t], [u], [v], [w], [x], [y], [z]}

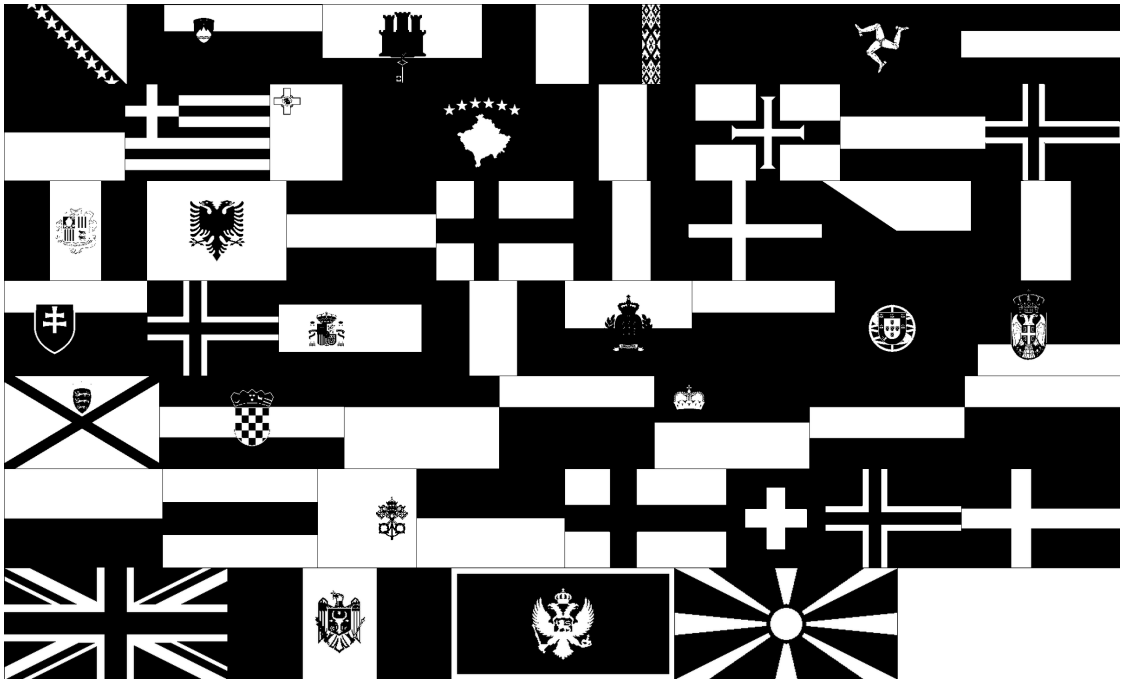
In[176]:=
```
ColorNegate /@ EntityValue[ planets PLANETS , "Image"]
```
Out[176]=



In[177]:=

```
ImageCollage[Binarize /@ EntityValue[Europe GEOGRAPHIC REGION [countries] ⋯ ✓, "Flag"]]
```

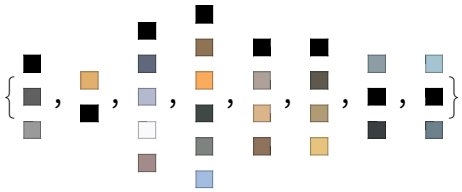
Out[177]=



In[178]:=

```
Column /@ DominantColors[EntityValue[planets PLANETS ⋯ ✓, "Image"]]
```

Out[178]=



In[179]:=

```
Plus@LetterNumber@Characters["Wolfram"]
```

Out[179]=

```
{23, 15, 12, 6, 18, 1, 13}
```