Perfect! 8 / 8. See comments on this page and last page.

Walker — Problem Set 13

Section 33

In[1]:=
```
Head[ListPlot[{0, 2}]]
```

Out[1]=
```
Graphics
```

In[2]:=
```
Times @@ Range[100]
```

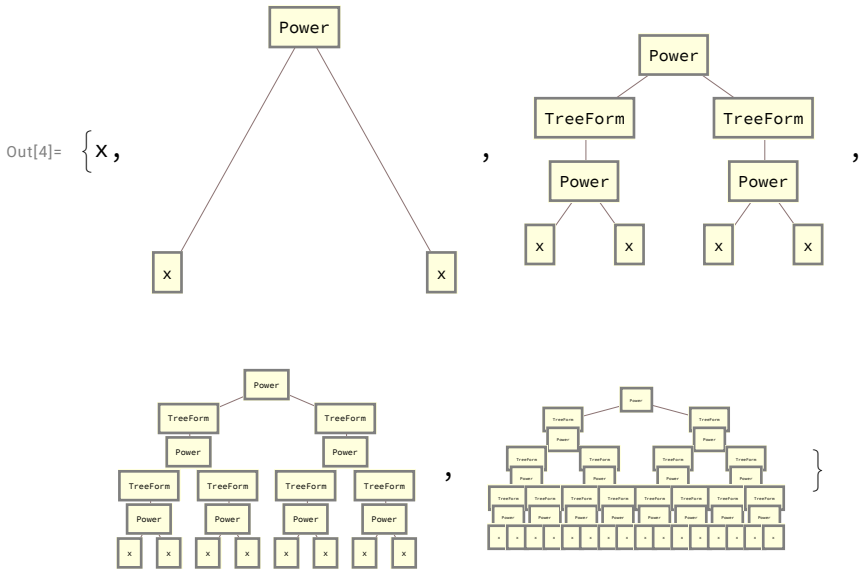
Out[2]=
```
93 326 215 443 944 152 681 699 238 856 266 700 490 715 968 264 381 621 468 592 963 895 217 599 993 ⁘
 229 915 608 941 463 976 156 518 286 253 697 920 827 223 758 251 185 210 916 864 000 000 000 000 ⁘
 000 000 000 000
```

In[3]:=
```
f @@@ Tuples[{a, b}, 2]
```

Out[3]=
```
{f[a, a], f[a, b], f[b, a], f[b, b]}
```

In[4]:=
```
NestList[TreeForm[#^#] &, x, 4]
```

Out[4]=



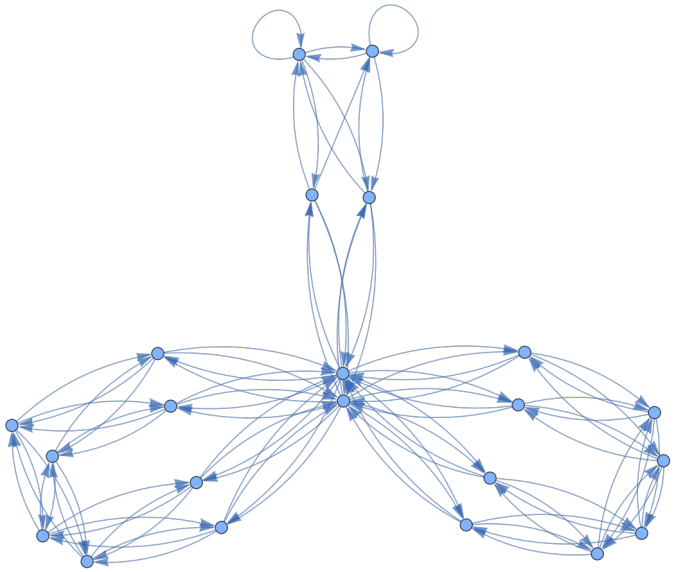
In[5]:=
```
Union[Cases[Flatten[Table[i^2 / (j^2 + 1), {i, 20}, {j, 20}]], _Integer]]
```

Out[5]=
```
{2, 5, 8, 10, 17, 18, 20, 32, 40, 45, 50, 72, 80, 98, 128, 162, 200}
```

Most people forgot to unique the results with Union.

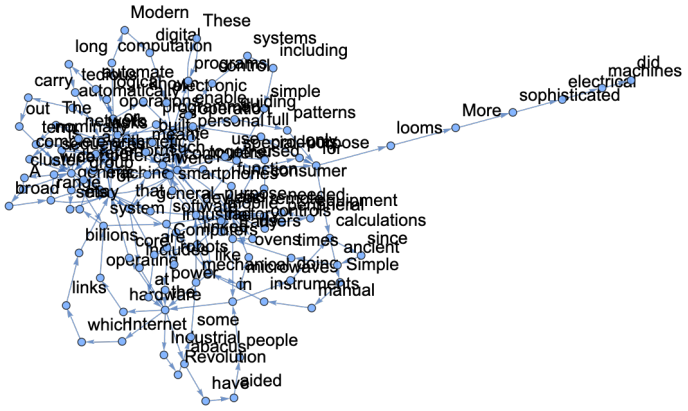
In[6]:=
```
Graph[Rule @@@ Partition[Table[Mod[n^2 + n, 100], {n, 100}], 2, 1]]
```

Out[6]=



In[7]:=
```
Graph[Rule @@@ Partition[Take[TextWords[WikipediaData["computers"]], 200], 2, 1],
 VertexLabels → All]
```

Out[7]=



In[8]:=
```
f @@@ {{1, 2}, {7, 2}, {5, 4}}
```

Out[8]=
```
{f[1, 2], f[7, 2], f[5, 4]}
```

Section 34

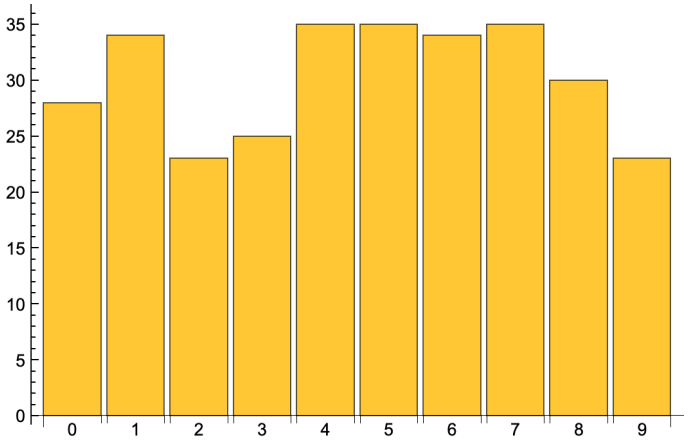
In[9]:=
```
Counts[Sort[IntegerDigits[3^100]]]
```

Out[9]=
```
⟨| 0 → 7, 1 → 9, 2 → 9, 3 → 5, 4 → 1, 5 → 5, 6 → 4, 7 → 7, 9 → 1 |⟩
```

Nice! Your answer to 34.2 is better than mine.

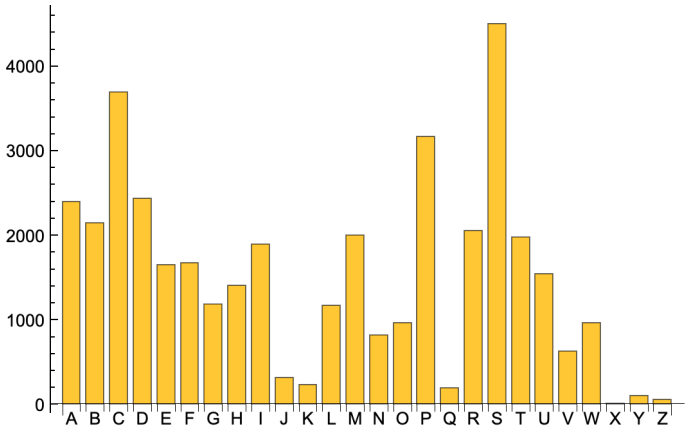
In[10]:=
```
BarChart[Counts[Sort[IntegerDigits[2^1000]]], ChartLabels → Automatic]
```

Out[10]=



In[11]:=
```
BarChart[Counts[First /@ Characters /@ ToUpperCase /@ WordList[]],
 ChartLabels → Automatic]
```

Out[11]=



In[12]:=
```
Take[Reverse[Sort[Counts[First /@ Characters /@ WordList[]]]], 5]
```

Out[12]=

```
⟨| s → 4499, c → 3693, p → 3168, d → 2433, a → 2393 |⟩
```

In[13]:=
```
Take[Reverse[Sort[Counts[First /@ Characters /@ WordList[]]]], 5]
```

Out[13]=

```
⟨| s → 4499, c → 3693, p → 3168, d → 2433, a → 2393 |⟩
```

In[14]:=
```
N[#q / #u] &[LetterCounts[WikipediaData["computers"]]]
```

Out[14]=

```
0.0401274
```

In[15]:=
```
Keys[Take[Reverse[
   Sort[Counts[TextWords[ExampleData[{"Text", "AliceInWonderland"}]]]]], 10]]
```

Out[15]=

```
{the, and, a, to, she, of, was, Alice, in, it}
```