Walker — Problem Set 13

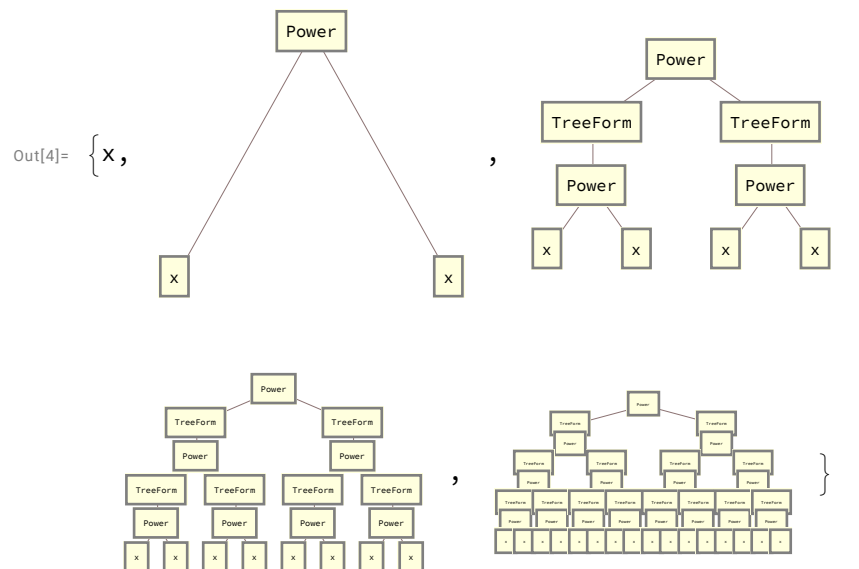## Section 33

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]=
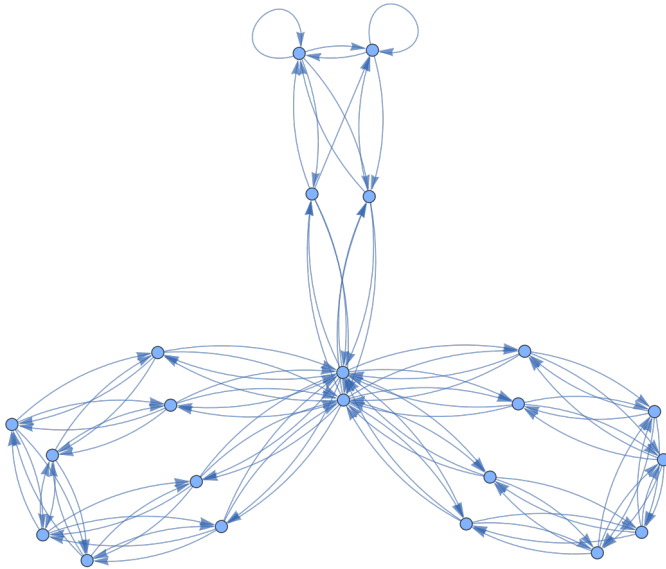

In[5]:= `Union[Cases[Flatten[Table[i^2 / (j^2 + 1), {i, 20}, {j, 20}]], _Integer]]`
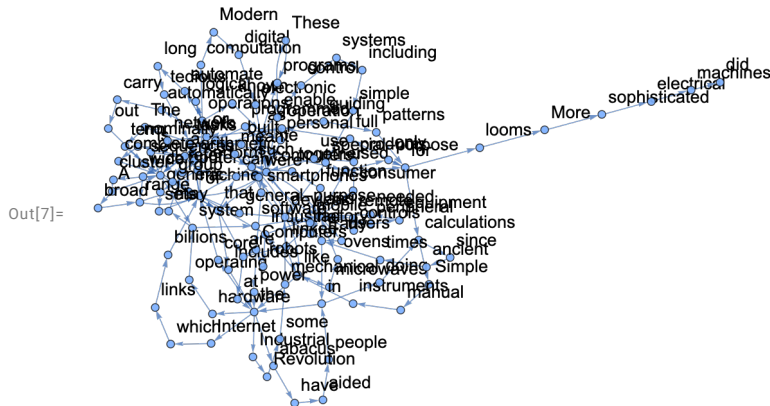
Out[5]= {2, 5, 8, 10, 17, 18, 20, 32, 40, 45, 50, 72, 80, 98, 128, 162, 200}

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]`
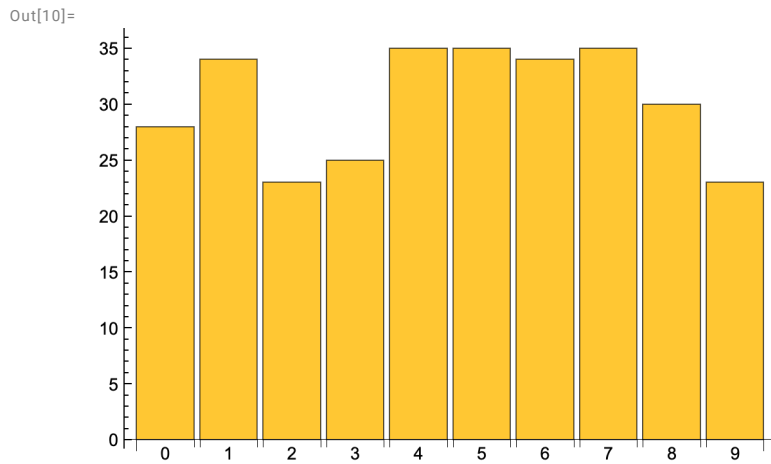
Out[7]=

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

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

Section 34

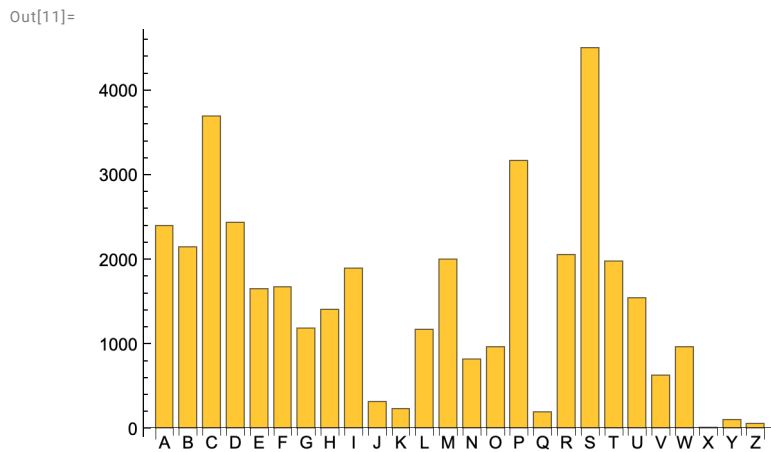In[9]:= `Counts[Sort[IntegerDigits[3^100]]]`

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

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}