Harper — PS 3 — 2025-01-24

Sections 9-11

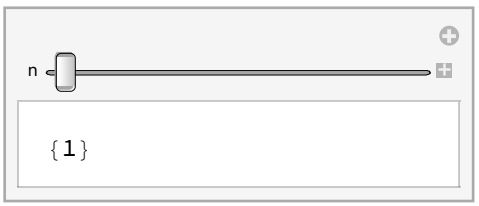
In[56]:=

Excellent! I see no issues at all! 10/10

Section 9

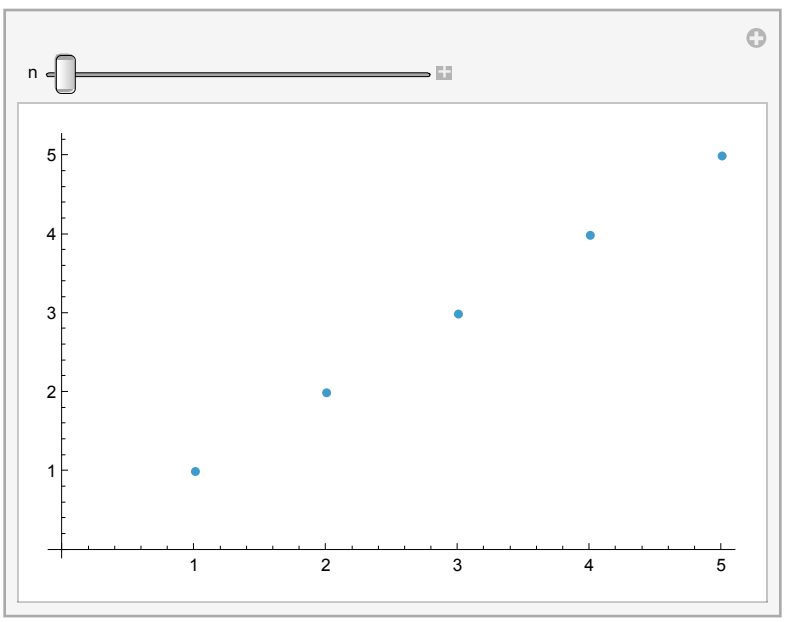
In[57]:=
```
Manipulate[Range[n], {n, 1, 100, 1}]
```

Out[57]=



In[58]:=
```
Manipulate[ListPlot[Range[n]], {n, 5, 50, 1}]
```

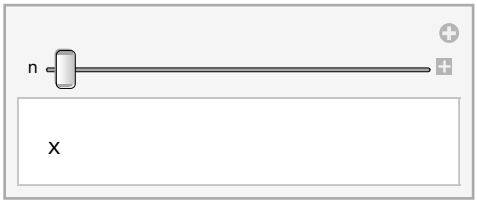
Out[58]=



I think he was looking for a number line plot not a list line plot on this one. At least that was my interpretation.

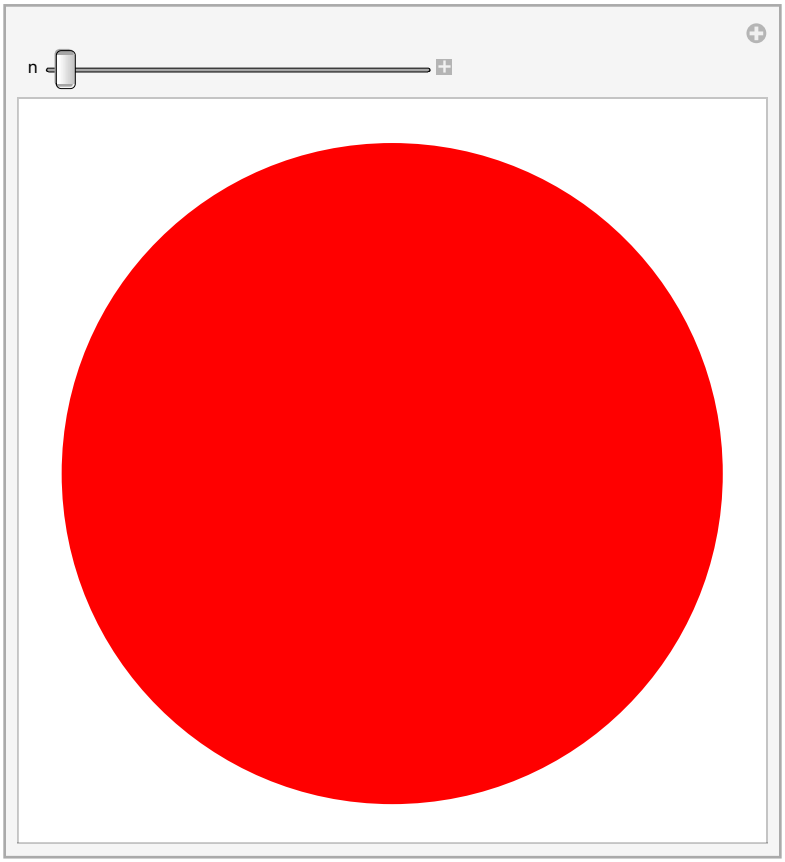
In[59]:=
```
Manipulate[Column[Table[x, n]], {n, 1, 10, 1}]
```

Out[59]=



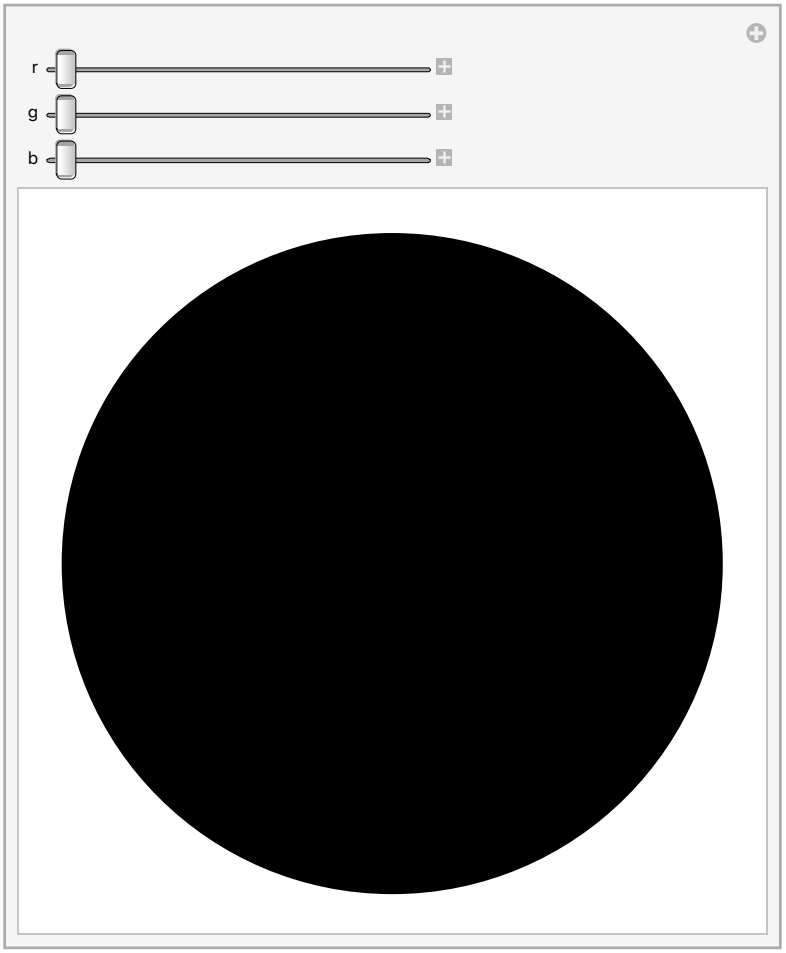
In[60]:=
```
Manipulate[Graphics[Style[Disk[], Hue[n]]], {n, 0, 1}]
```

Out[60]=



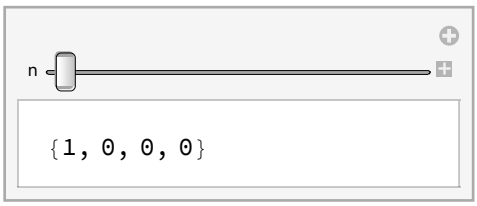
In[61]:=
```
Manipulate[Graphics[Style[Disk[], RGBColor[r, g, b]]], {r, 0, 1}, {g, 0, 1}, {b, 0, 1}]
```

Out[61]=



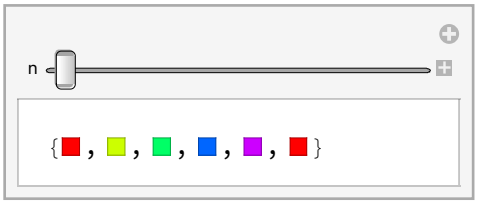
In[62]:=
```
Manipulate[IntegerDigits[n], {n, 1000, 9999, 1}]
```

Out[62]=



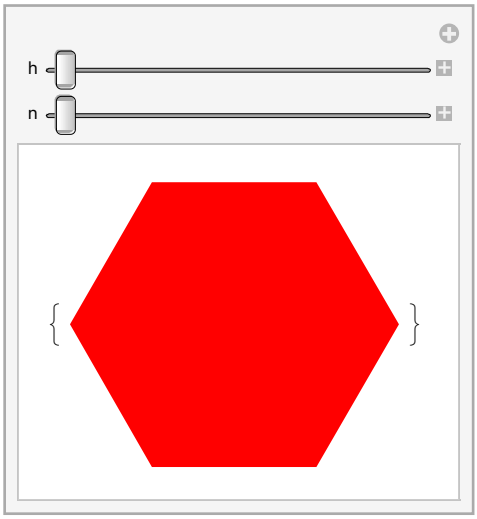
In[63]:=
```
Manipulate[Table[Hue[h], {h, 0, 1, n}], {n, 0.2, 0.02}]
```

Out[63]=



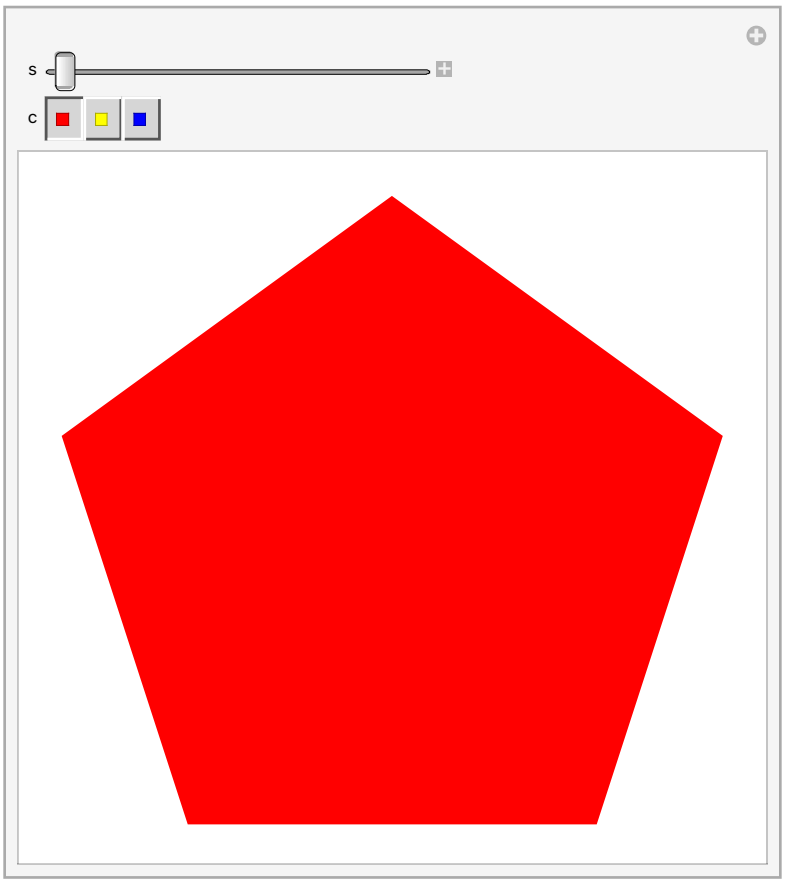
In[64]:=
```
Manipulate[Table[Graphics[Style[RegularPolygon[6], Hue[h]]], n],
 {h, 0, 1}, {n, 1, 10, 1}]
```

Out[64]=



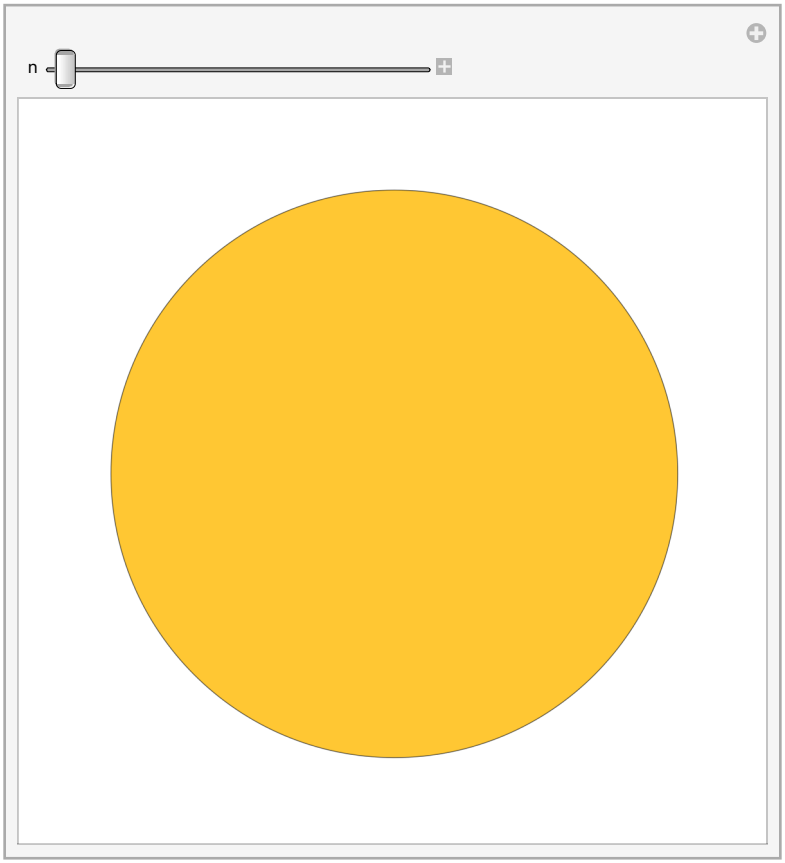
In[65]:=
```
Manipulate[Graphics[Style[RegularPolygon[s], {c}]],
 {s, 5, 20, 1}, {c, {Red, Yellow, Blue}}]
```

Out[65]=



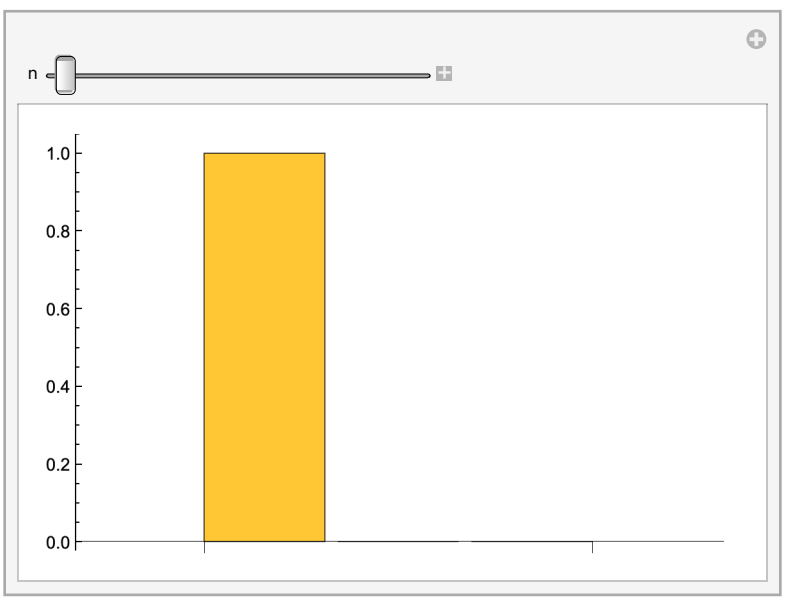
In[66]:=
```
Manipulate[PieChart[Table[1, n]], {n, 1, 10, 1}]
```

Out[66]=



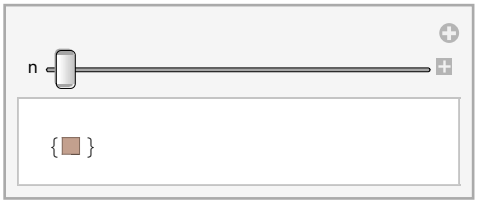
In[67]:=
```
Manipulate[BarChart[IntegerDigits[n]], {n, 100, 999, 1}]
```

Out[67]=



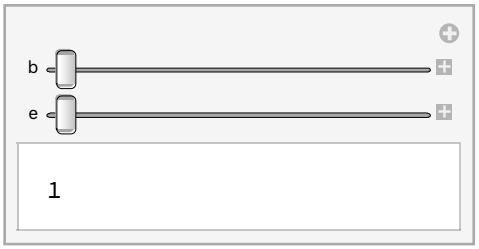
In[68]:=
```
Manipulate[RandomColor[n], {n, 1, 50, 1}]
```

Out[68]=



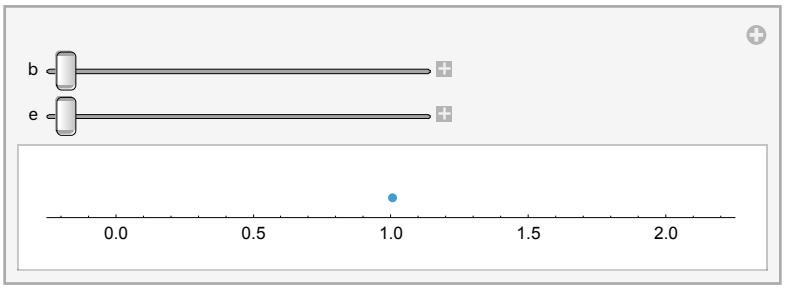
In[69]:=
```
Manipulate[b^e, {b, 1, 25, 1}, {e, 1, 10, 1}]
```

Out[69]=



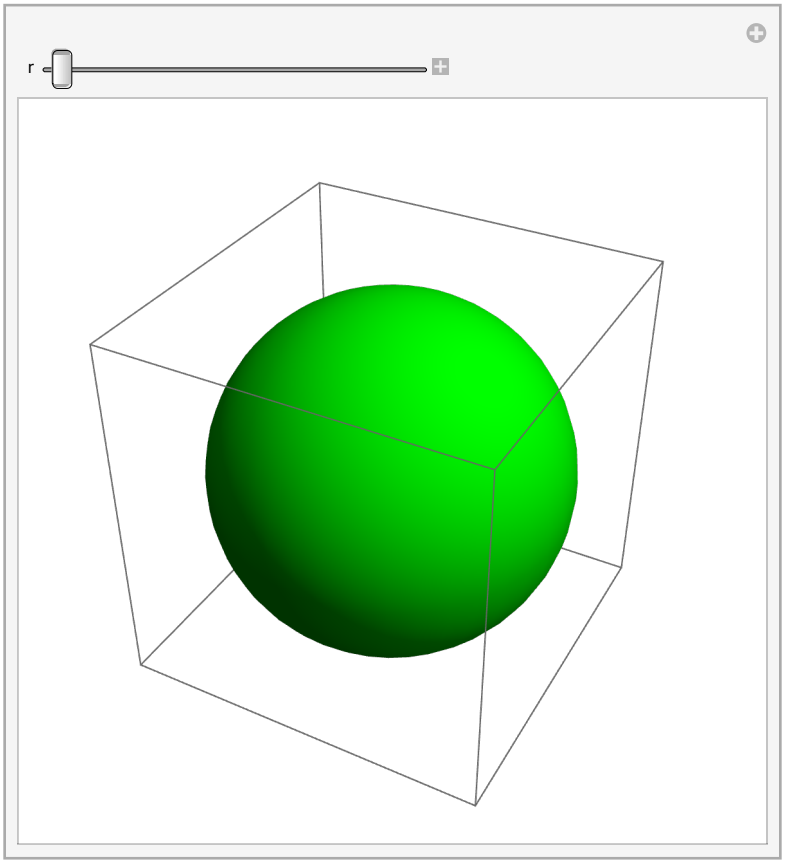
In[70]:=
```
Manipulate[NumberLinePlot[Range[b]^e], {b, 1, 10, 1}, {e, 0, 5, 1}]
```

Out[70]=



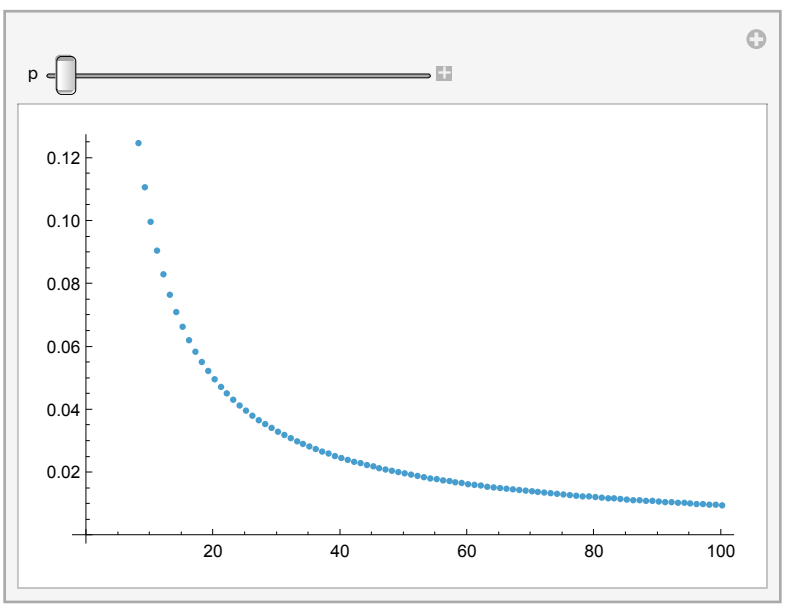
In[71]:=
```
Manipulate[Graphics3D[Style[Sphere[], RGBColor[r, 1 - r, 0]]], {r, 0, 1}]
```

Out[71]=



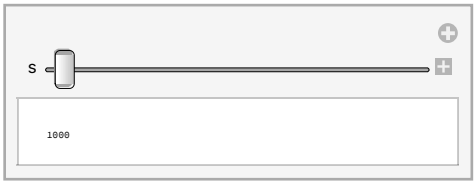
In[72]:=
```
Manipulate[ListPlot[Range[100]^p], {p, -1, 1}]
```

Out[72]=



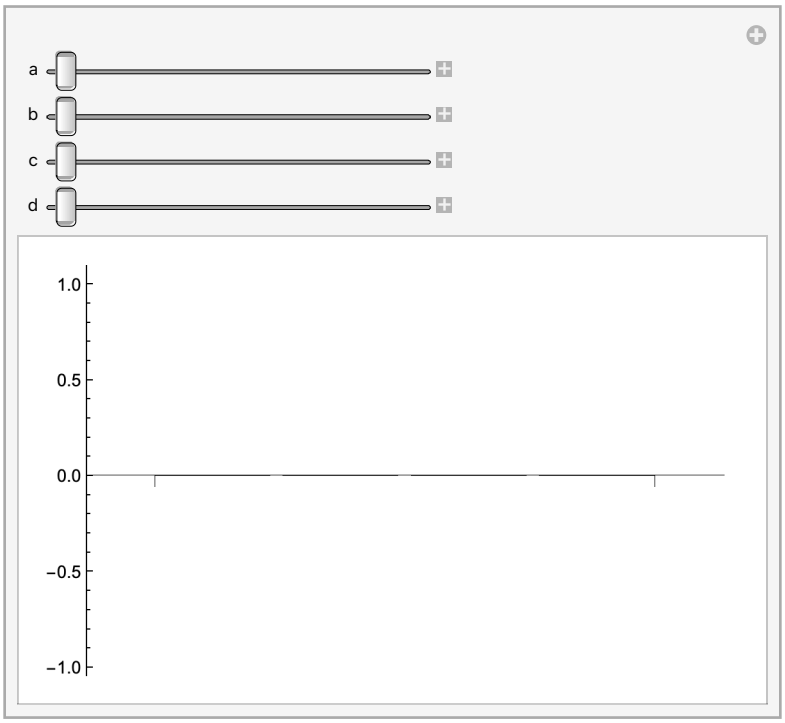
In[73]:=
```
Manipulate[Style[1000, s], {s, 5, 100, 1}]
```

Out[73]=



In[74]:=
```
Manipulate[BarChart[{a, b, c, d}], {a, 0, 10}, {b, 0, 10}, {c, 0, 10}, {d, 0, 10}]
```

Out[74]=

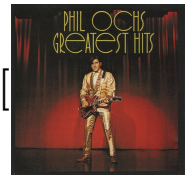


Section 10

COOL CHOICE OF IMAGE

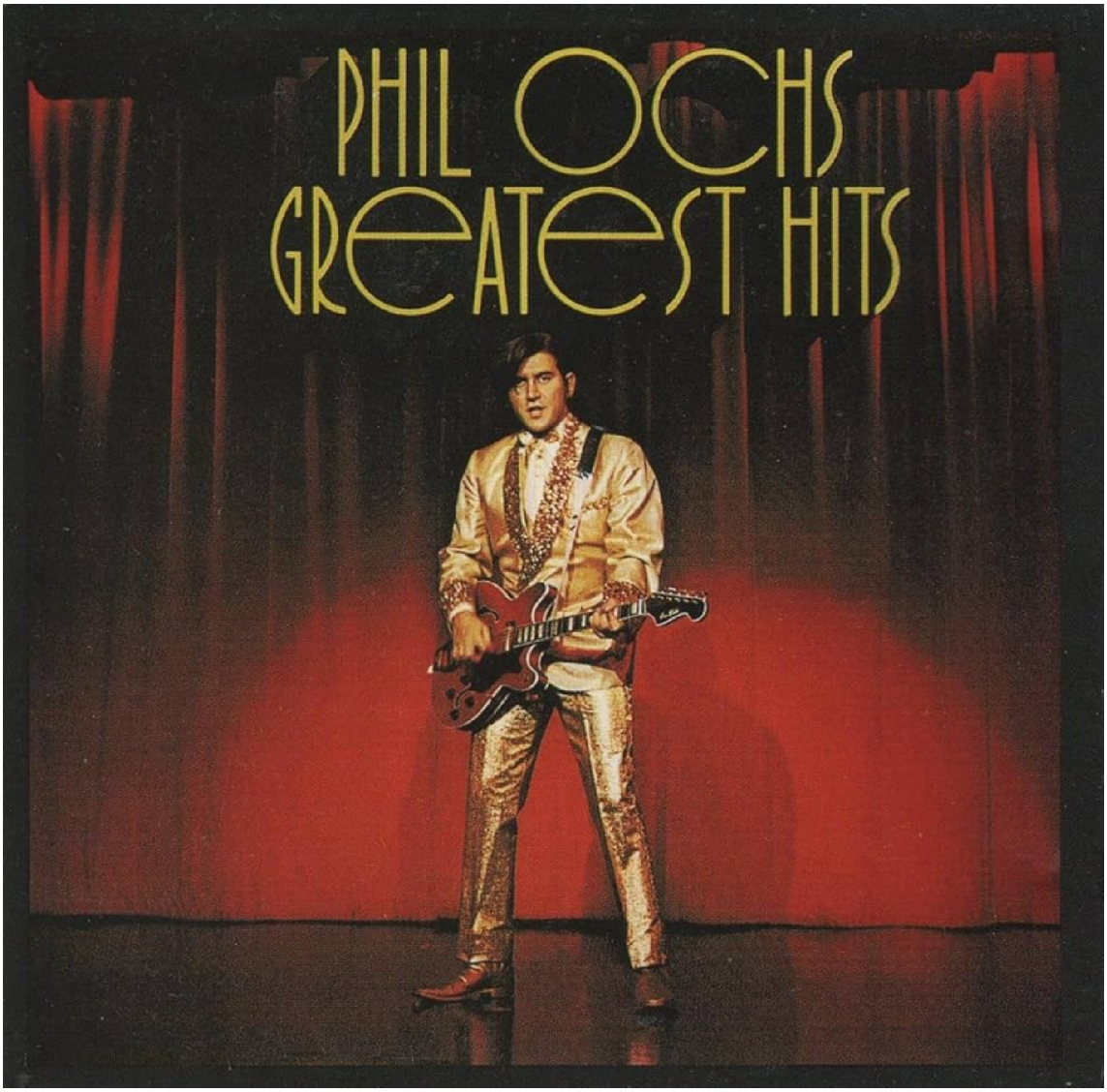
In[75]:= ColorNegate[EdgeDetect[ ]]

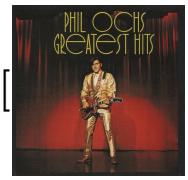
Out[75]=

In[76]:= Manipulate[Blur[ , n], {n, 0, 20}]

Out[76]=

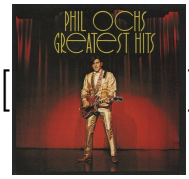
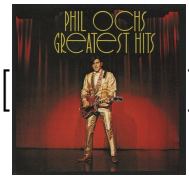
n


PHIL OCHS
GREATEST HITS

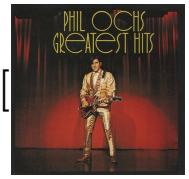
In[77]:= Table[EdgeDetect[Blur[

, n]], {n, 10}]

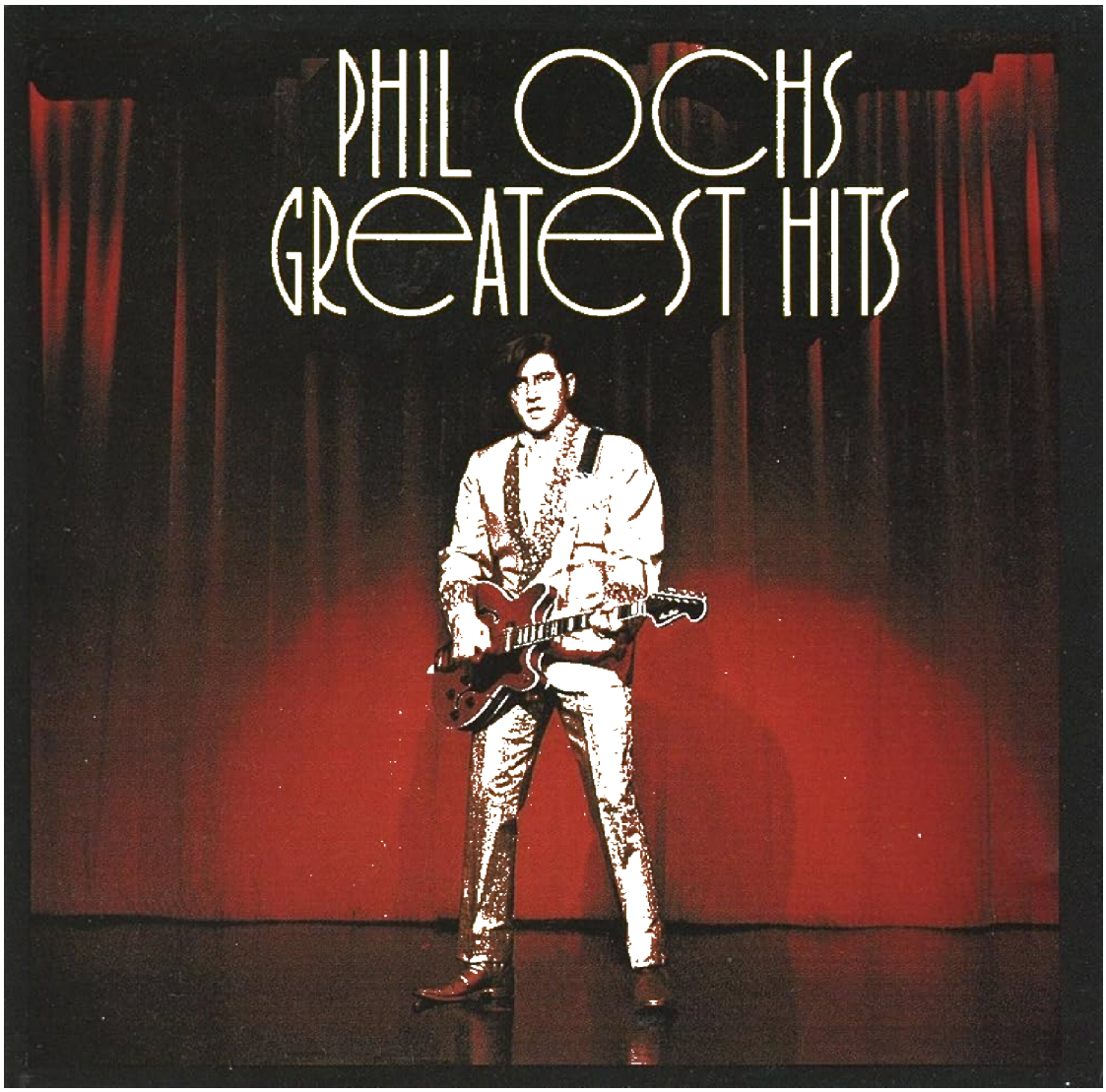
Out[77]=

In[78]:= ImageCollage[{Blur[], EdgeDetect[ ], Binarize[]}]

Out[78]=

In[79]:= ImageAdd[ , Binarize[ ]]

Out[79]=

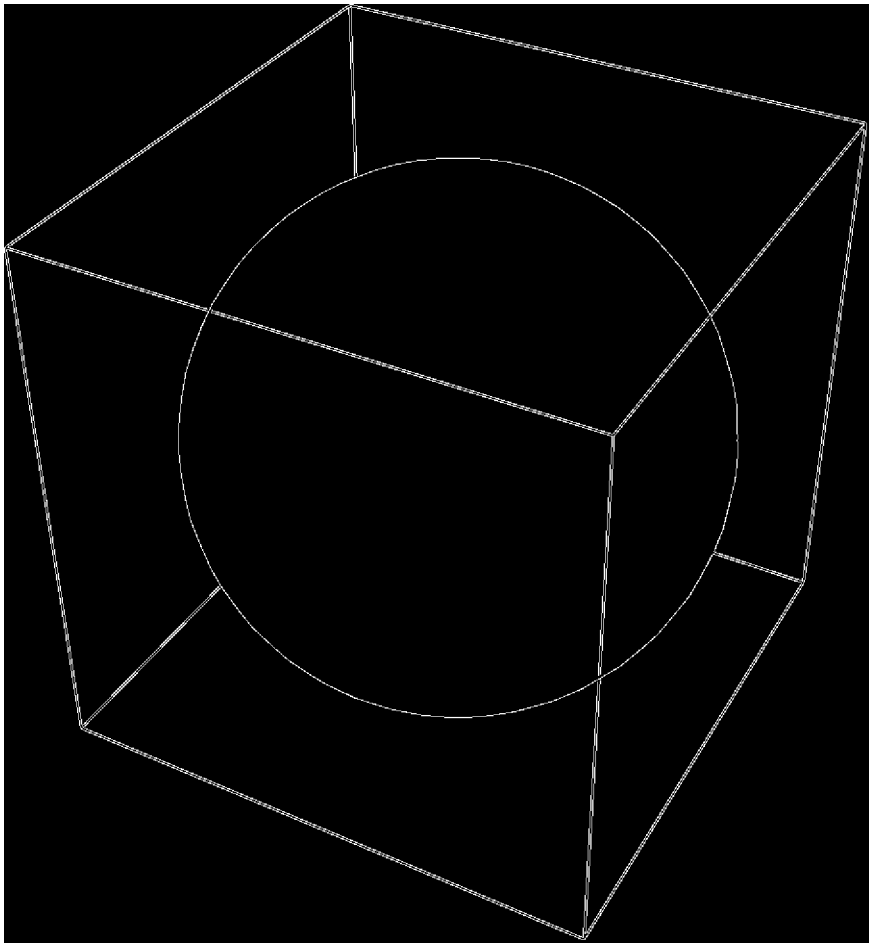


In[80]:= Table[EdgeDetect[Blur[, n]], {n, 1, 10}]

Out[80]=

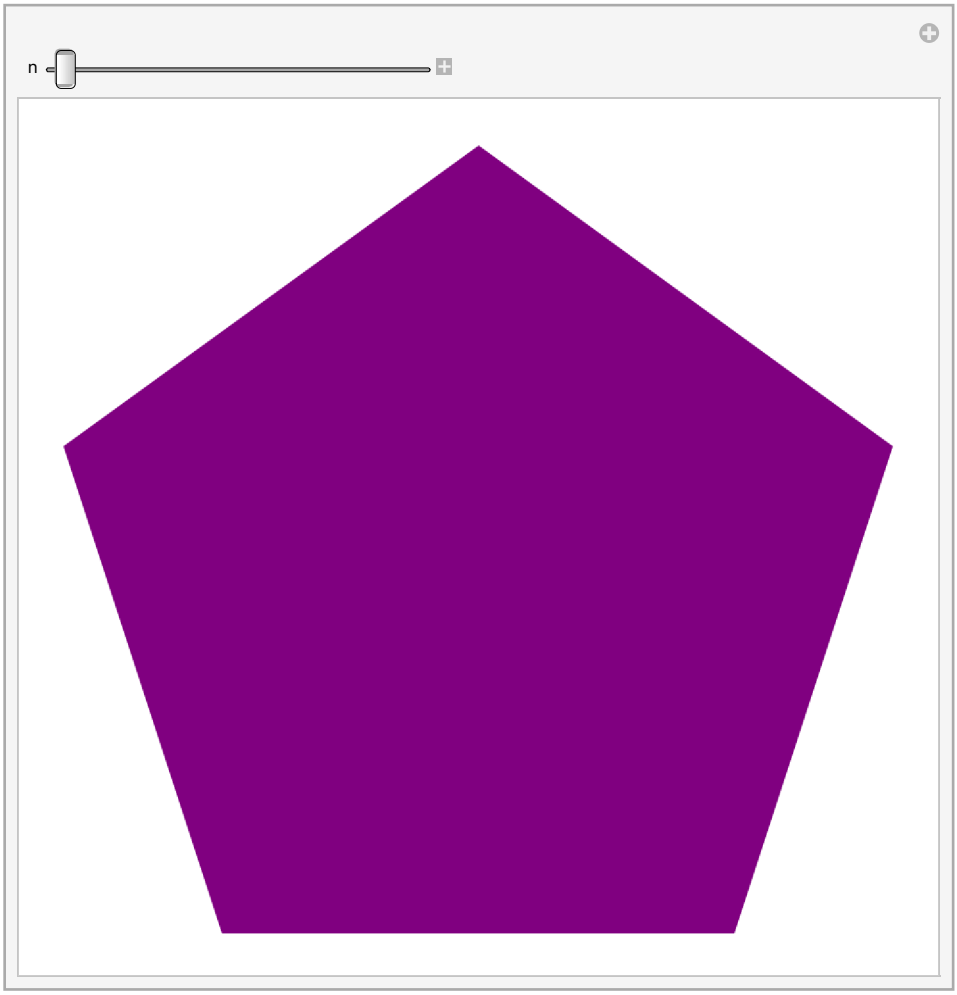
In[81]:=
```
EdgeDetect[Graphics3D[Sphere[]]]
```

Out[81]=



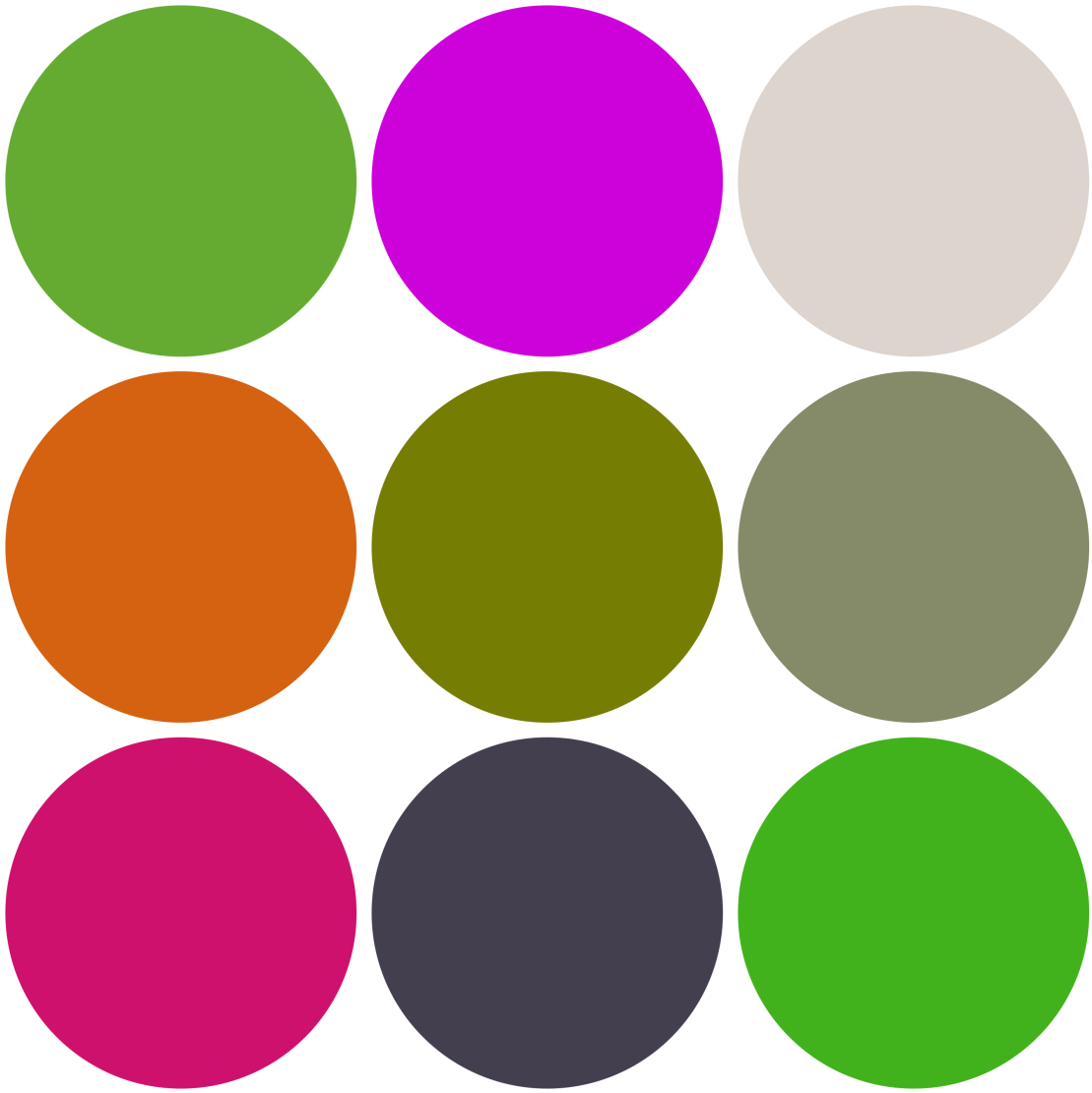
In[82]:=
```
Manipulate[Blur[Graphics[Style[RegularPolygon[5], Purple]], n], {n, 0, 20}]
```

Out[82]=



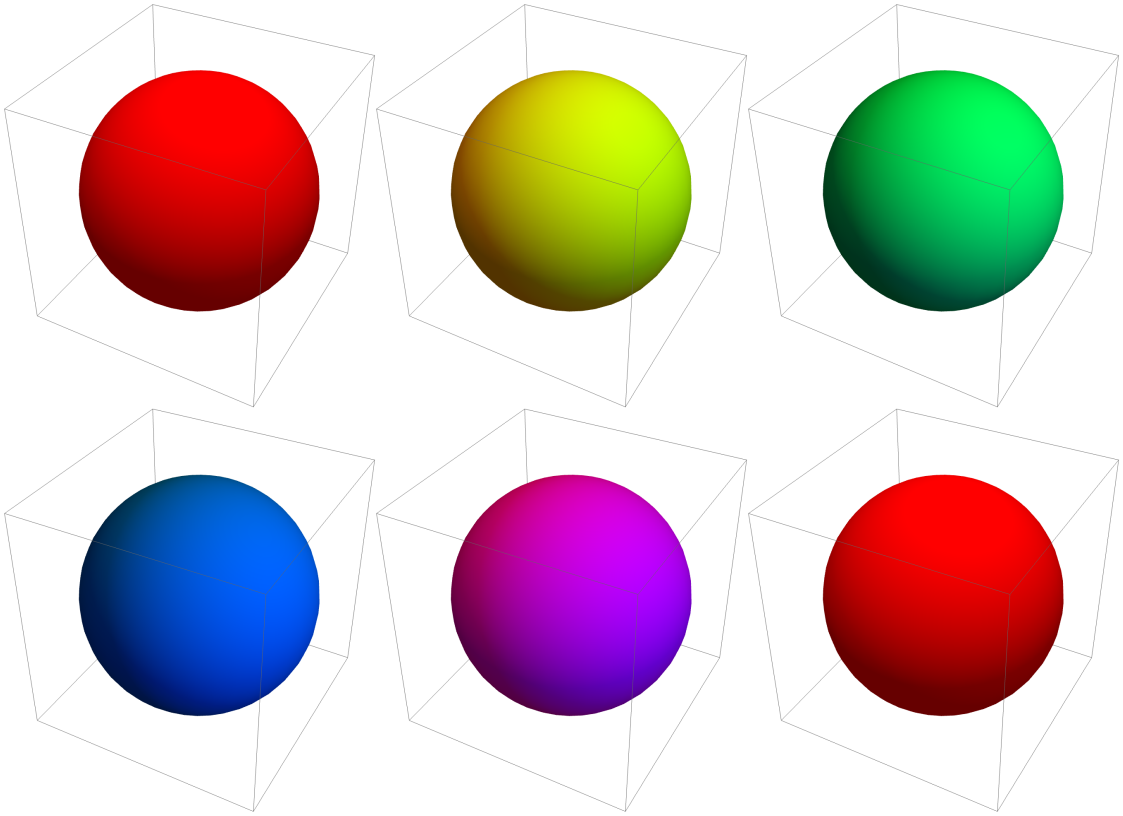
In[83]:=
```
ImageCollage[Table[Graphics[Style[Disk[], RandomColor[]]], 9]]
```

Out[83]=



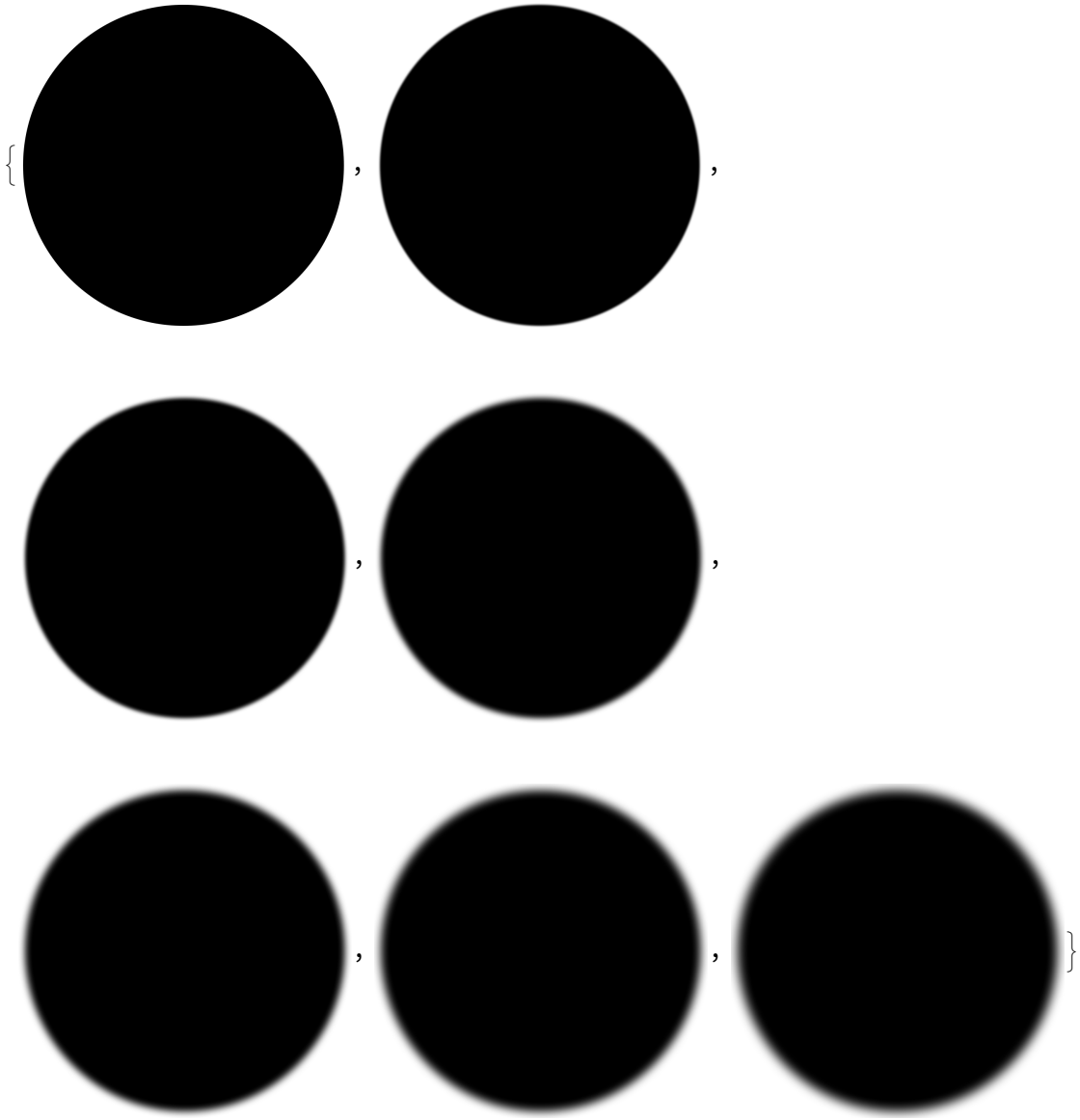
In[84]:=
```
ImageCollage[Table[Graphics3D[Style[Sphere[], Hue[n]]], {n, 0, 1, 0.2}]]
```

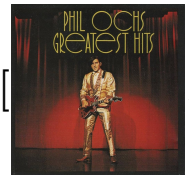
Out[84]=



In[85]:=
```
Table[Blur[Graphics[Disk[]], n], {n, 0, 30, 5}]
```

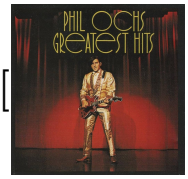
Out[85]=



In[86]:= ImageAdd[

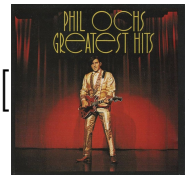
, Graphics[Disk[]]]

Out[86]=

In[87]:= ImageAdd[

, Graphics[Style[RegularPolygon[8], Red]]]

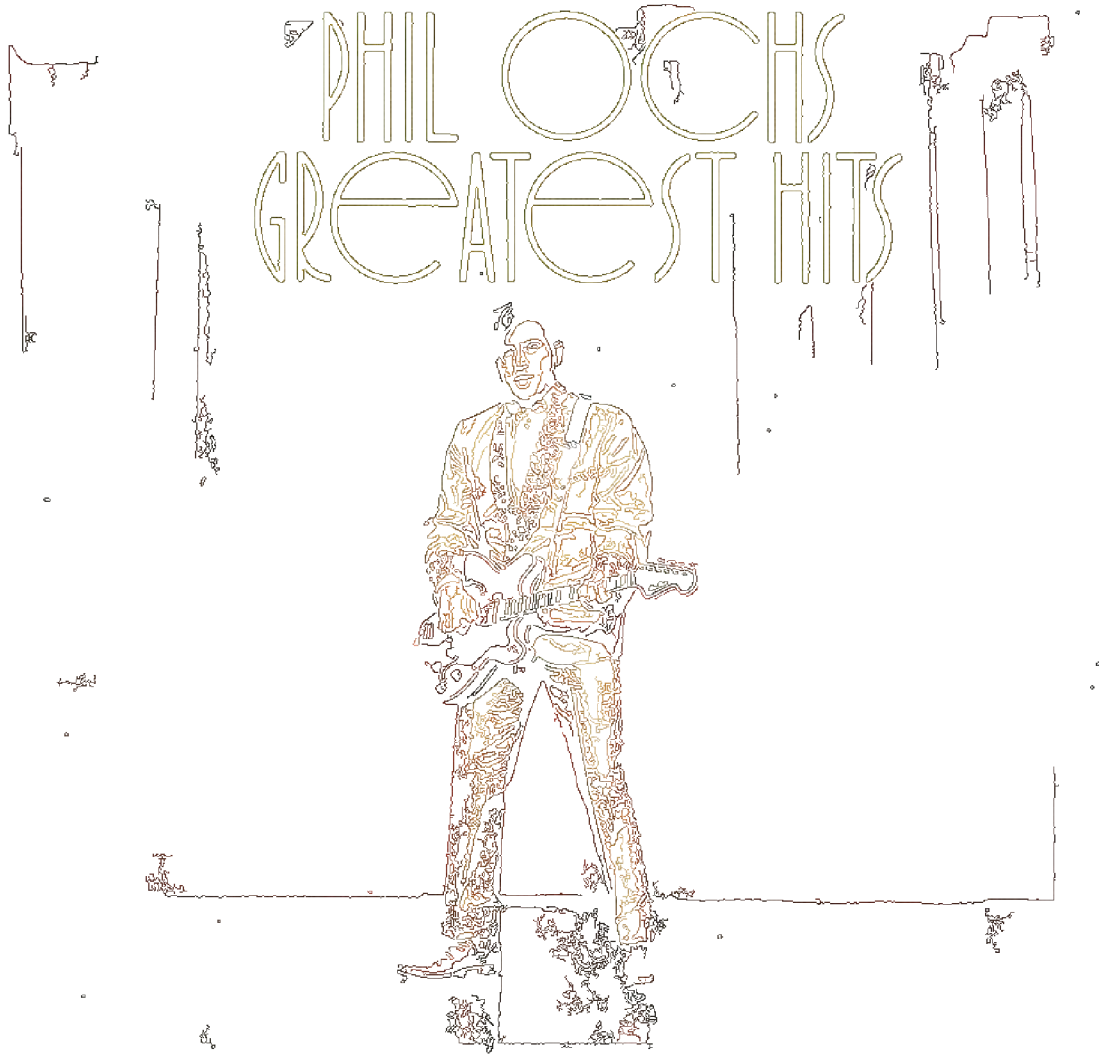
Out[87]=

In[88]:= ImageAdd[

, ColorNegate[EdgeDetect[

]]]

Out[88]=



Section 11 - 11.1-11.15

In[89]:=
```
StringJoin["Hello", "Hello"]
```

Out[89]=

HelloHello

In[90]:=
```
ToUpperCase[StringJoin[Alphabet[]]]
```

Out[90]=

ABCDEFGHIJKLMNOPQRSTUVWXYZ

In[91]:=
```
StringJoin[Reverse[Alphabet[]]]
```
Out[91]=
```
zyxwvutsrqponmlkjihgfedcba
```

In[92]:=
```
StringJoin[Table["AGCT", 100]]
```
Out[92]=
```
AGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTA
   GCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGC
   TAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTA
   GCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGC
   TAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTAGCTA
   GCTAGCT
```

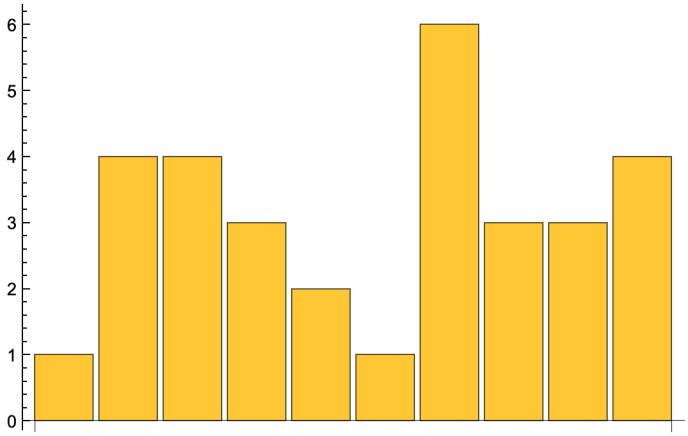
In[93]:=
```
StringTake[StringJoin[Alphabet[]], 6]
```
Out[93]=
```
abcdef
```

In[94]:=
```
Column[Table[StringTake["this is about strings.", n], {n, 22}]]
```
Out[94]=
```
t
th
thi
this
this
this i
this is
this is
this is a
this is ab
this is abo
this is abou
this is about
this is about
this is about s
this is about st
this is about str
this is about stri
this is about strin
this is about string
this is about strings
this is about strings.
```

In[95]:=

In[96]:=
```
BarChart[StringLength[TextWords["A long time ago, in a galaxy far, far away."]]]
```

Out[96]=



In[97]:=
```
StringLength[WikipediaData["computers"]]
```

Out[97]=

60 266

In[98]:=
```
First[TextSentences[WikipediaData["strings"]]]
```

Out[98]=

String or strings may refer to:

In[99]:=
```
StringJoin[StringTake[TextSentences[WikipediaData["computers"]], 1]]
```

Out[99]=

AMTTACCESEMTTTCTPP=ITTDBTTTT==DTLTTTSITIIDMTTAAATTTIASIBIAITITIITSI=CCAHTFTTTAEBNH
=ITax()2{,THI=DHTTTTAB==CBTDETTITIRTZTT=PTEITDTTHACIINCTLOTIIIHBT==TTHTVTE=
ECWATIHJTIIAATBAIL=TJFCJTHATHTTWITT=TTDTKIHKNNHPNIMTGFTTWISTITS=TTLTTTT=C=A=SH=
TC==ATIET=WTTSC=TSC=TCATRDIRTPIWJSAIT=TES=TTSHTALTSG=
AETTLSIETWOAMTTRACrRIIISFIIG=IDOHCIAMA=WTOBItSTBSIT=SMSTSS=SSCICW=T=TTMIAL=
TITHTFMPWSTCBOTOI=ITTSTTITMWITC=PUTTS=MF=ATHHIT=PALTP=ETHOBSA=CTITTITCITA"=AWA=
TMH=TQCVSLTTT=ACARPE=AT=====M

In[100]:=
```
Max[StringLength[WordList[]]]
```

Out[100]=

23

In[101]:=
```
Count[StringTake[WordList[], 1], "q"]
```

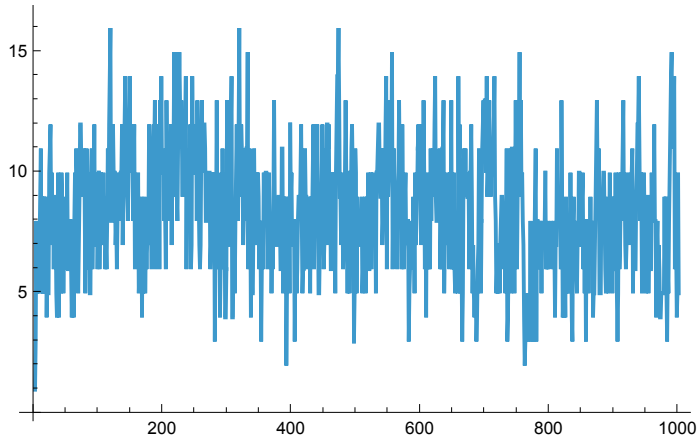
Out[101]=

194

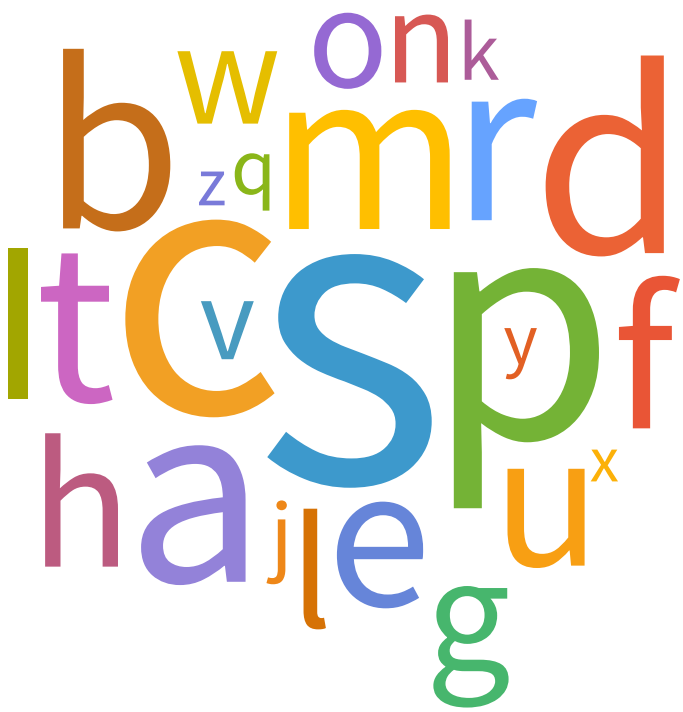
In[102]:=

```
ListLinePlot[Take[StringLength[WordList[]], 1000]]
```

Out[102]=



In[103]:=

```
WordCloud[StringTake[WordList[], 1]]
```

Out[103]=