Looks great! No comments from me. 8/8

Walker — Problem Set 15

Section 37

In[235]:=
```
If[EvenQ[#], Style[#, Background → Yellow], Style[#, Background → LightGray]] & /@
 Range[100]
```

Out[235]=
```
{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22,
 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42,
 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62,
 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81,
 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100}
```

In[236]:=
```
If[PrimeQ[#], Framed[#], #] & /@ Range[100]
```

Out[236]=
```
{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22,
 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42,
 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61,
 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80,
 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100}
```

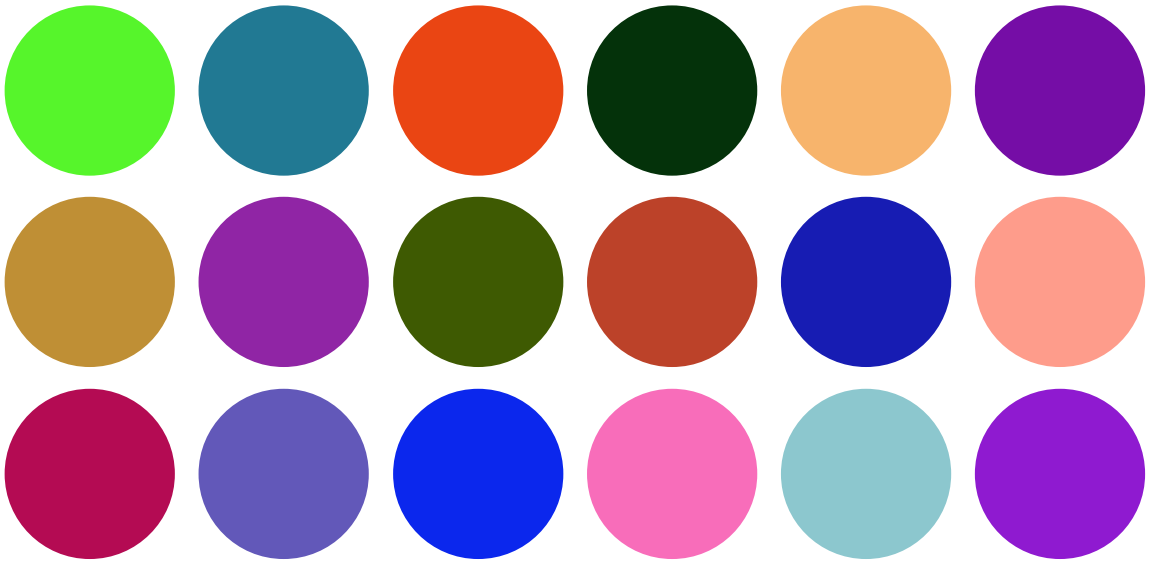
In[237]:=
```
If[PrimeQ[#], Labeled[Framed[#], Style[Mod[#, 4], LightGray]], #] & /@ Range[100]
```

Out[237]=

{1, 2₂, 3₃, 4, 5₁, 6, 7₃, 8, 9, 10, 11₃, 12, 13₁, 14, 15, 16, 17₁,
18, 19₃, 20, 21, 22, 23₃, 24, 25, 26, 27, 28, 29₁, 30, 31₃, 32, 33,
34, 35, 36, 37₁, 38, 39, 40, 41₁, 42, 43₃, 44, 45, 46, 47₃, 48, 49, 50,
51, 52, 53₁, 54, 55, 56, 57, 58, 59₃, 60, 61₁, 62, 63, 64, 65, 66, 67₃,
68, 69, 70, 71₃, 72, 73₁, 74, 75, 76, 77, 78, 79₃, 80, 81, 82, 83₃,
84, 85, 86, 87, 88, 89₁, 90, 91, 92, 93, 94, 95, 96, 97₁, 98, 99, 100}

In[238]:=
```
GraphicsGrid[Table[Graphics[Style[Disk[], RandomColor[]]], 3, 6]]
```

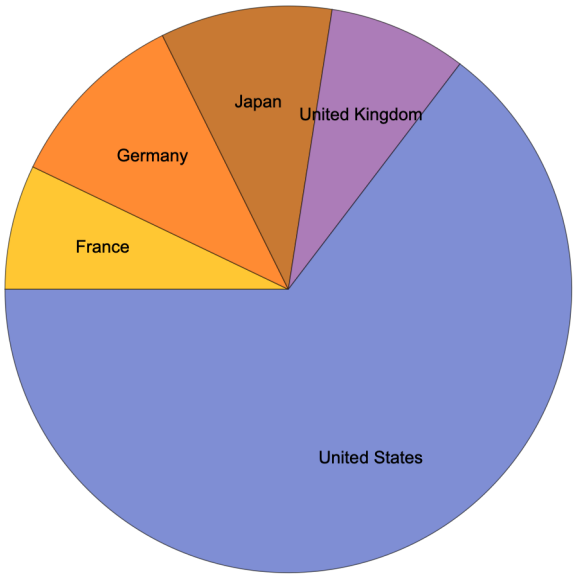
Out[238]=



In[239]:=

```
PieChart[Labeled[EntityValue[#, "GDP"], EntityValue[#, "Name"]] & /@
  EntityList[ Group of 5 COUNTRIES ], {}]
```

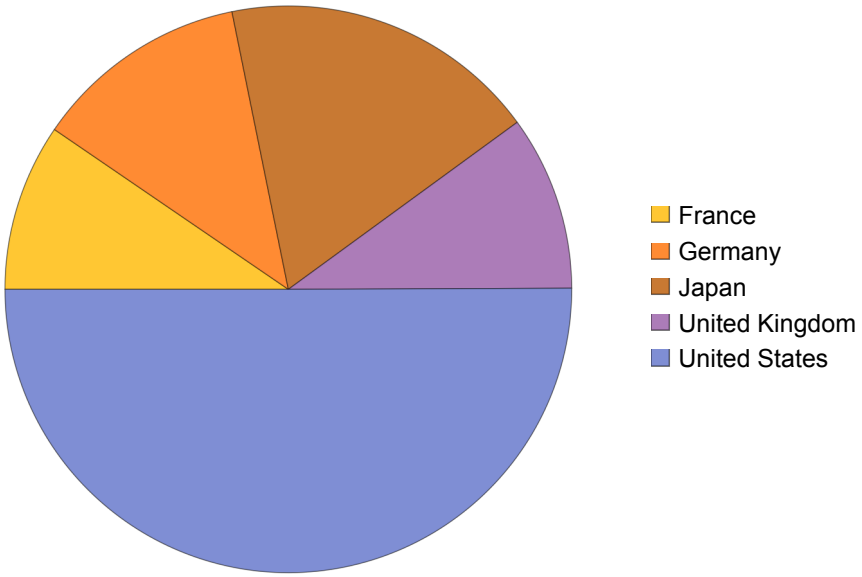
Out[239]=



In[240]:=

```
PieChart[Legended[EntityValue[#, "Population"], EntityValue[#, "Name"]] & /@
  EntityList[ Group of 5 COUNTRIES ], {}]
```

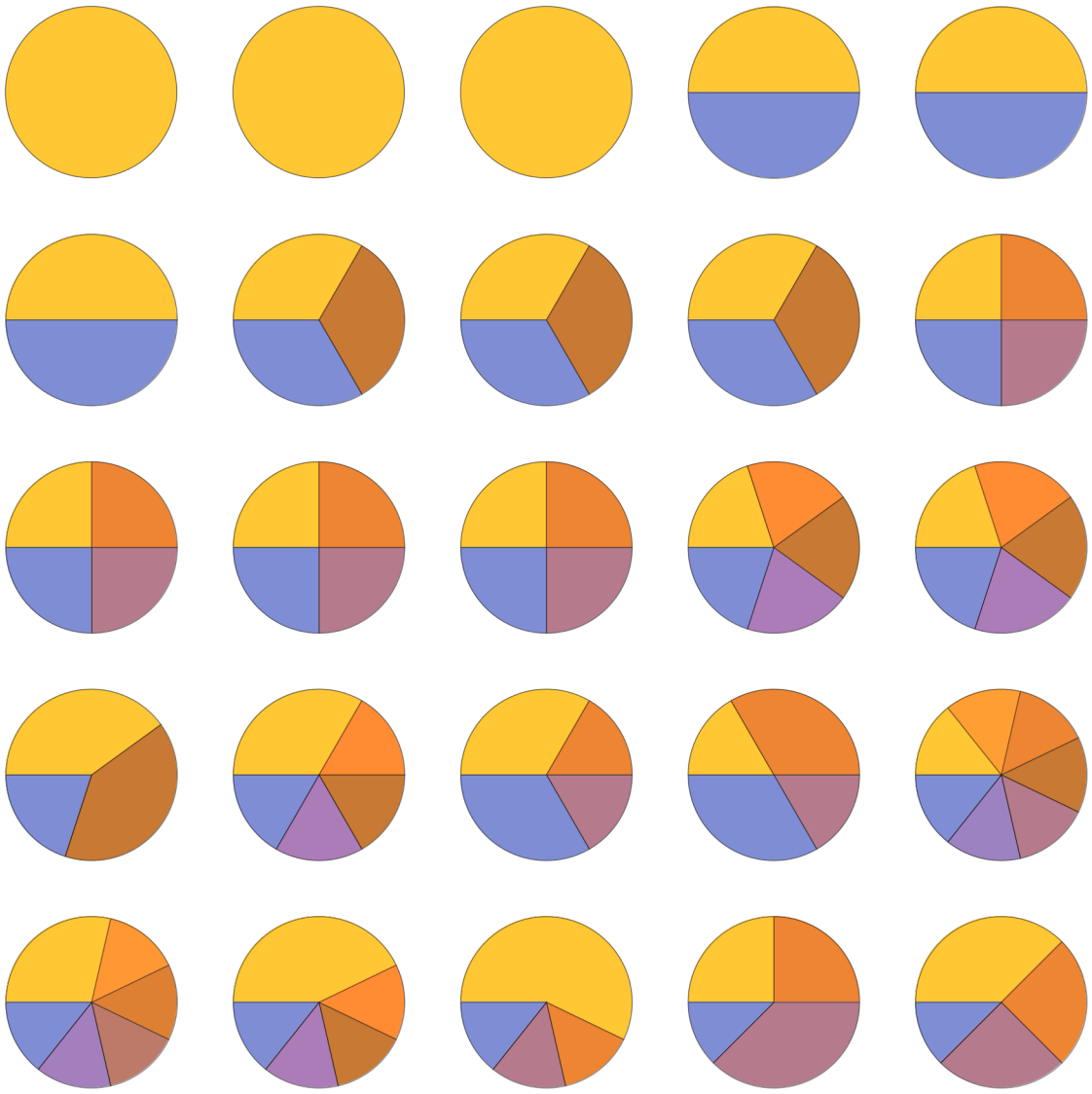
Out[240]=



In[241]:=

```
GraphicsGrid[
 Partition[PieChart[Length /@ Gather[IntegerDigits[2^#]]] & /@ Range[25], 5]]
```

Out[241]=



In[242]:=

```
GraphicsRow[WordCloud[WikipediaData[#]] & /@ EntityList[ Group of 5 COUNTRIES ]]
```

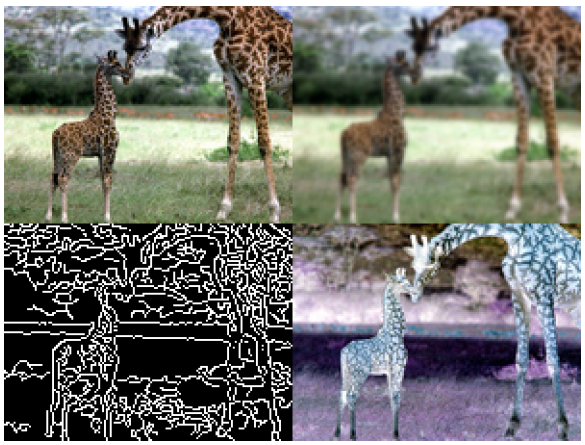
Out[242]=

Section 38

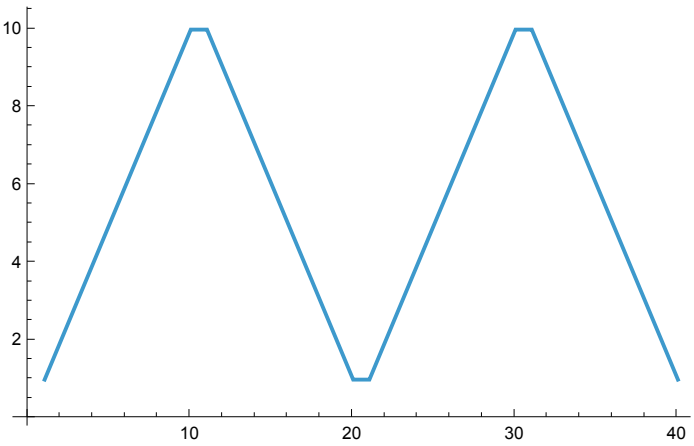
In[243]:=
```
Module[{x = Range[10]}, x^2 + x]
```
Out[243]=
```
{2, 6, 12, 20, 30, 42, 56, 72, 90, 110}
```

In[244]:=
```
Module[{x = RandomInteger[100, 10]}, Column[{x, Sort[x], Max[x], Total[x]}]]
```
Out[244]=
```
{30, 95, 99, 79, 84, 34, 45, 2, 7, 56}
{2, 7, 30, 34, 45, 56, 79, 84, 95, 99}
99
531
```

In[245]:=
```
Module[{x = giraffe SPECIES SPECIFICATION ["Image"]},
 ImageCollage[{x, Blur[x], EdgeDetect[x], ColorNegate[x]}]]
```
Out[245]=



In[246]:=
```
Module[{r = Range[10]}, ListLinePlot[Join[r, Reverse[r], r, Reverse[r]]]]
```
Out[246]=



In[247]:=
```
Module[{x = Range[10]}, {x + 1, x - 1, Reverse[x]}]
```
Out[247]=
```
{{2, 3, 4, 5, 6, 7, 8, 9, 10, 11},
 {0, 1, 2, 3, 4, 5, 6, 7, 8, 9}, {10, 9, 8, 7, 6, 5, 4, 3, 2, 1}}
```

In[248]:=
```
NestList[Mod[17 # + 2, 11] &, 10, 20]
```
Out[248]=
```
{10, 7, 0, 2, 3, 9, 1, 8, 6, 5, 10, 7, 0, 2, 3, 9, 1, 8, 6, 5, 10}
```

In[249]:=
```
Module[{c, v}, v = {"a", "e", "i", "o", "u"};
 c = If[MemberQ[v, #], Nothing, #] & /@ Alphabet[];
 Table[StringJoin[{RandomChoice[c], RandomChoice[v],
    RandomChoice[c], RandomChoice[v], RandomChoice[c]}], 10]]
```
Out[249]=
```
{koxam, qohot, hozoy, holav, givur, newad, kuwaq, yakud, bamom, xuvut}
```