

Hexi — PS 5 — 2025-02-04

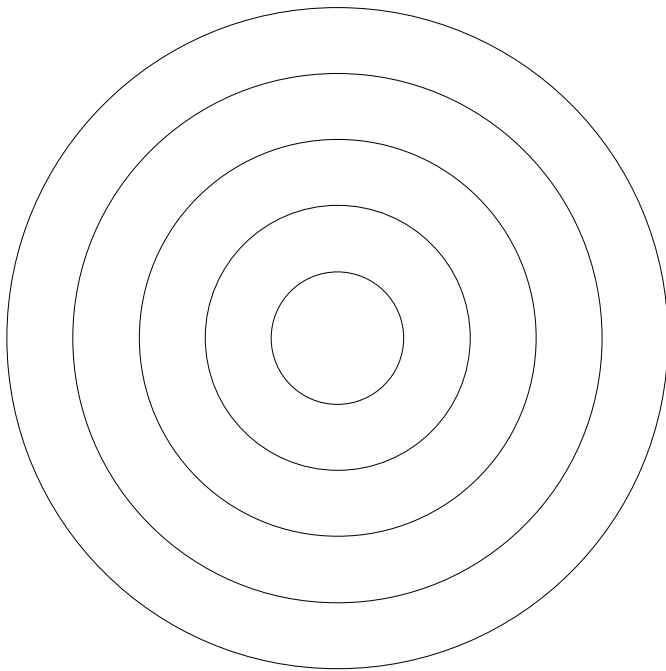
EIWL3 Sections 14 and 17

Exercises from *EIWL3* Section 14

In[294]:=

```
Graphics[Table[Circle[{0, 0}, r], {r, 1, 5}]]
```

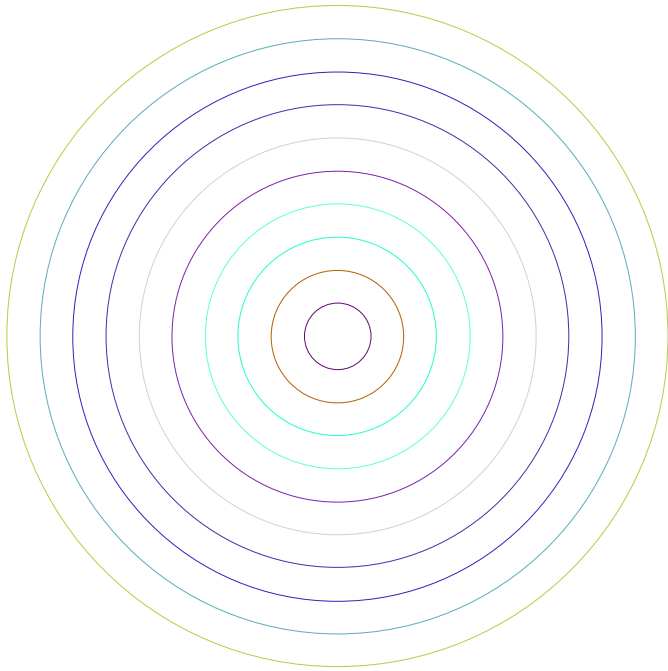
Out[294]=



In[295]:=

```
Graphics[Table[Style[Circle[{0, 0}, r], RandomColor[]], {r, 1, 10, 1}]]
```

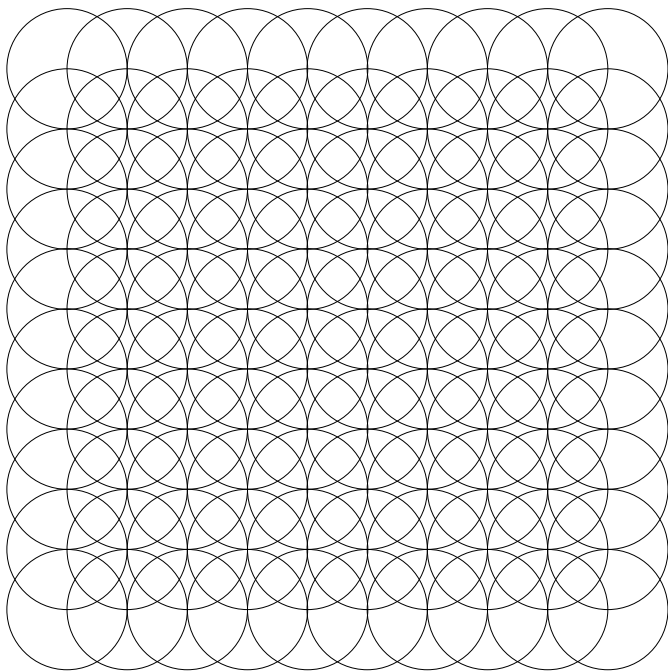
Out[295]=



In[296]:=

```
Graphics[Table[Circle[{x, y}], {x, 0, 9}, {y, 0, 9}]]
```

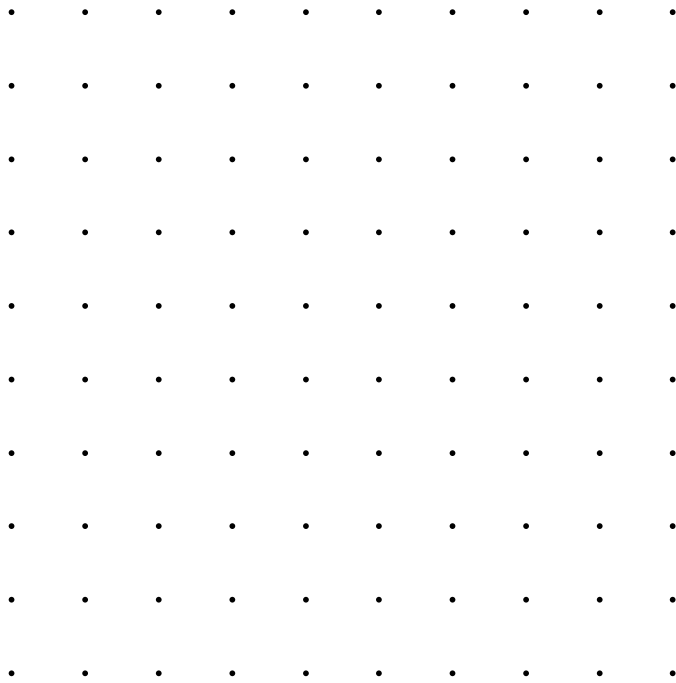
Out[296]=



In[297]:=

Graphics[Table[Point[{x, y}], {x, 10}, {y, 10}]]

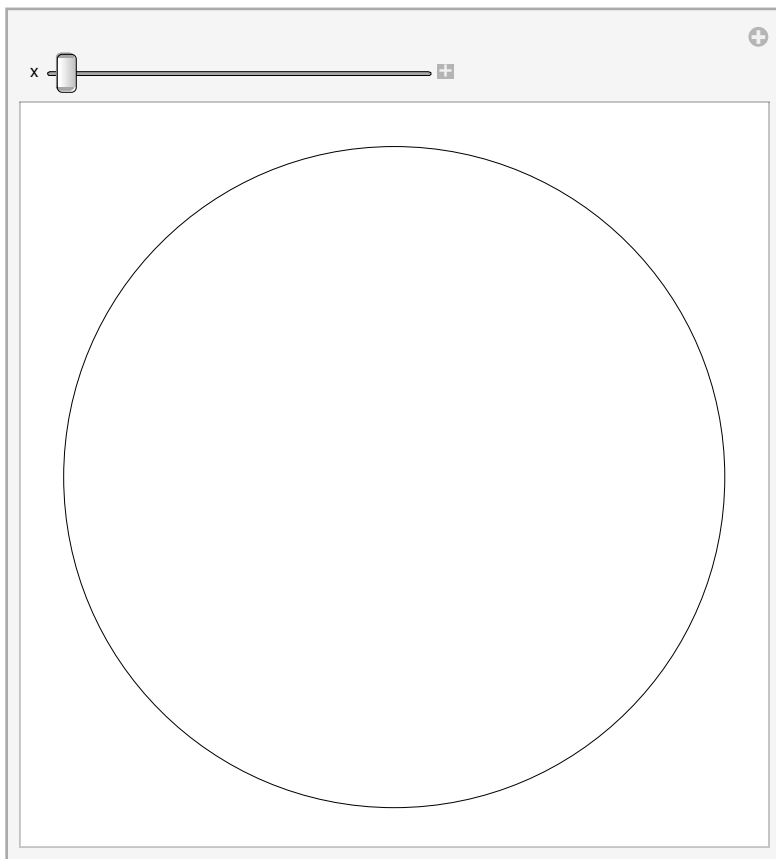
Out[297]=



In[298]:=

Manipulate[Graphics[Table[Circle[{0, 0}, r], {r, 1, x}], {x, 1, 20, 1}]

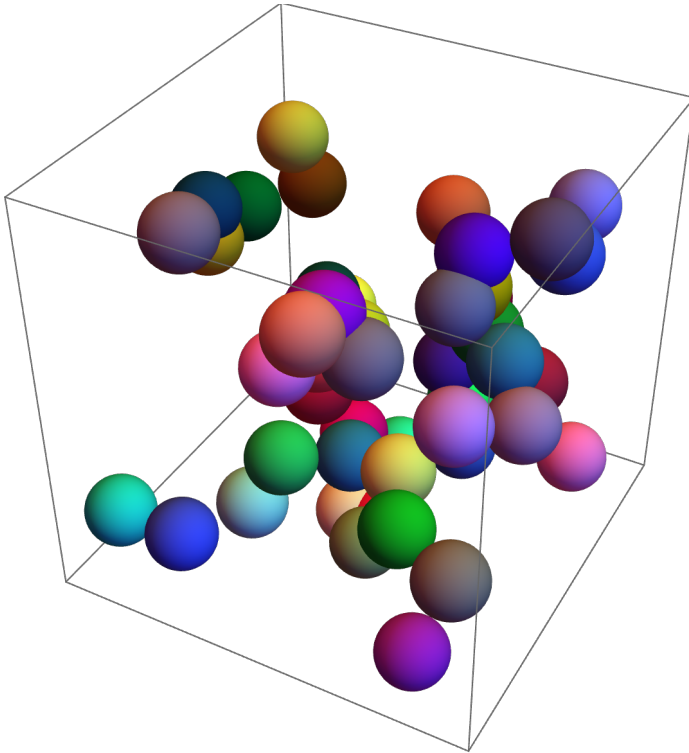
Out[298]=



In[299]:=

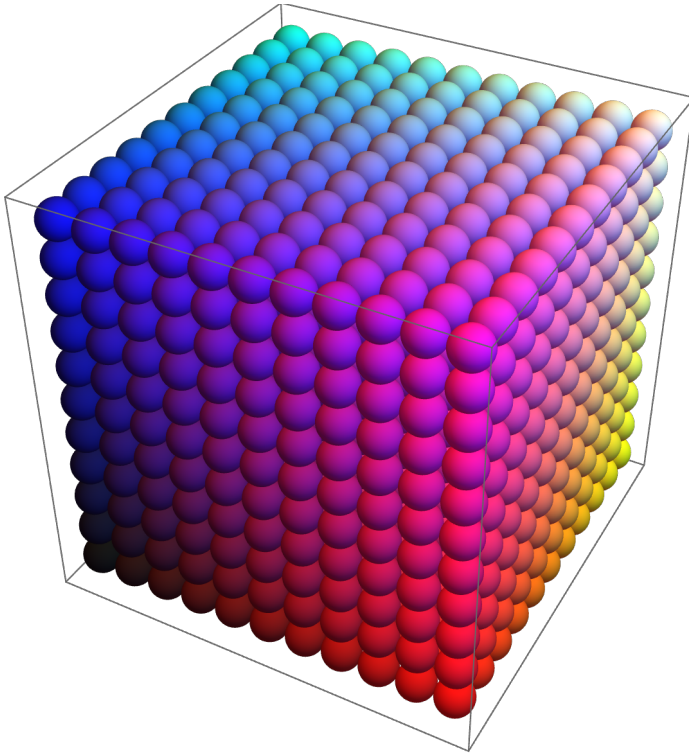
```
Graphics3D[Table[Style[Sphere[RandomInteger[10, 3]], RandomColor[]], 50]]
```

Out[299]=



```
In[300]:= Graphics3D[Table[Style[Sphere[{x, y, z}, 1 / 2], RGBColor[x / 11, y / 11, z / 11]],  
  {x, 11}, {y, 11}, {z, 11}]]
```

Out[300]=

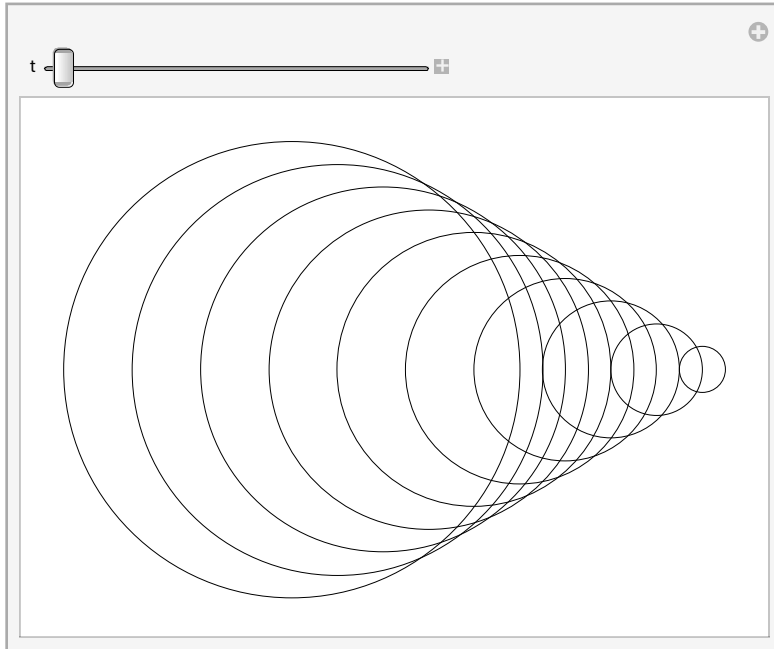


In[301]:=

In[302]:=

```
Manipulate[Graphics[Table[Circle[{t*x, 0}, x], {x, 1, 10}]], {t, -2, 2}]
```

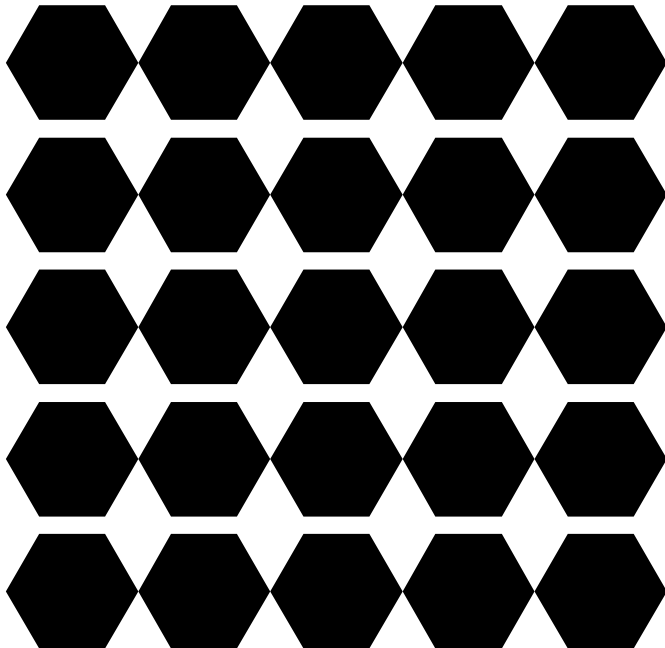
Out[302]=



In[303]:=

```
Graphics[Table[RegularPolygon[{x, y}, 1/2, 6], {x, 1, 5}, {y, 1, 5}]]
```

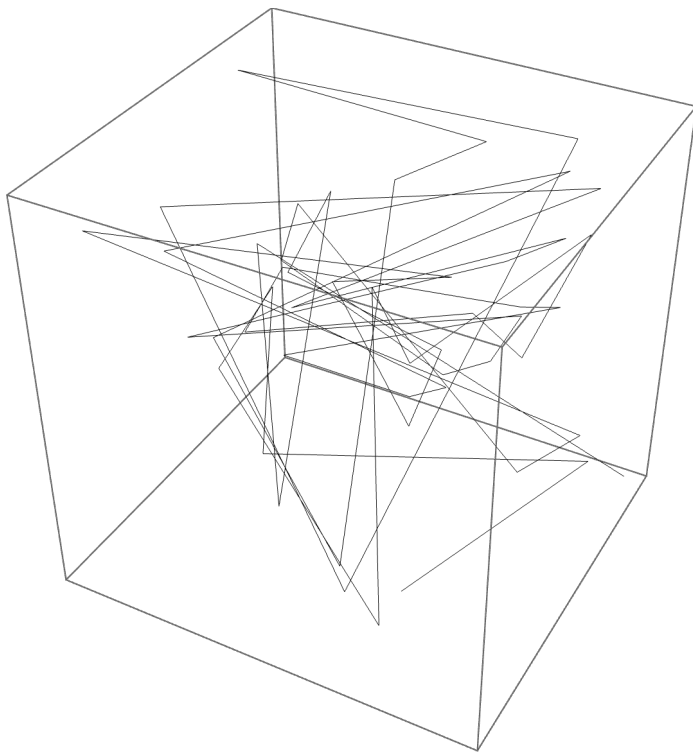
Out[303]=



In[304]:=

Graphics3D[**Line[{Table[{RandomInteger[50], RandomInteger[50], RandomInteger[50]}, 50]}]]**

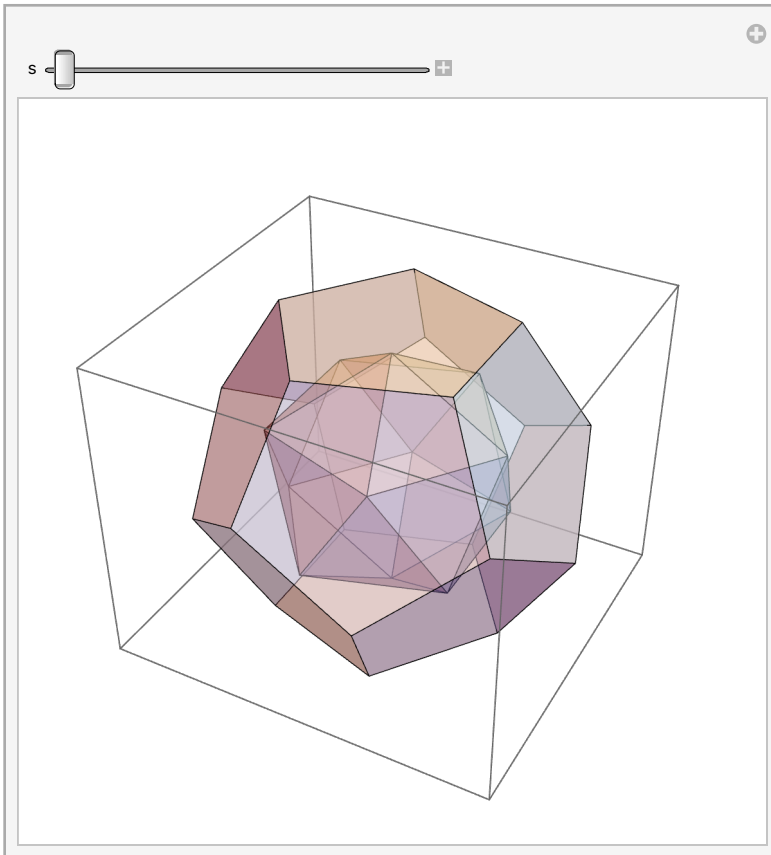
Out[304]=



In[305]:=

```
Manipulate[Graphics3D[Style[
  {Icosahedron[{0, 0, 0}, s], Dodecahedron[{0, 0, 0}, 1]}, Opacity[0.5]]], {s, 1, 2}]
```

Out[305]=



Exercises from EIWL3 Section 14

In[306]:=

```
UnitConvert[4.5 lb, "Kilograms"]
```

Out[306]=

2.04117 kg

In[307]:=

```
UnitConvert[60.25 mi/h, "Kilometers per hour"]
```

Out[307]=

96.963 km/h

In[308]:=

```
UnitConvert[Eiffel Tower BUILDING [ total height ], "Miles"]
```

Out[308]=

```
0.205052 mi
```

In[309]:=

```
Mount Everest MOUNTAIN [ elevation ] / Eiffel Tower BUILDING [ total height ]
```

Out[309]=

```
26.8147
```

In[310]:=

```
Earth PLANET [ mass ] / Moon PLANETARY MOON [ mass ]
```

Out[310]=

```
81.3
```

In[311]:=

```
CurrencyConvert[¥2500. , $ ]
```

Out[311]=

```
$16.44
```

In[312]:=

```
UnitConvert[35 oz + 0.25 sh tn + 45 lb + 9 stone , "Kilograms"]
```

Out[312]=

```
305.353 kg
```

In[313]:=

```
UnitConvert[EntityValue[ planets PLANETS , "DistanceFromEarth"], "Light minutes"]
```

Out[313]=

```
{ 11.4198 light minutes , 3.66412 light minutes ,  
  0. light minutes , 6.19672 light minutes , 39.2366 light minutes ,  
  87.3811 light minutes , 162.484 light minutes , 255.37 light minutes }
```

In[314]:=

```
Rotate["hello", 180 Degree]
```

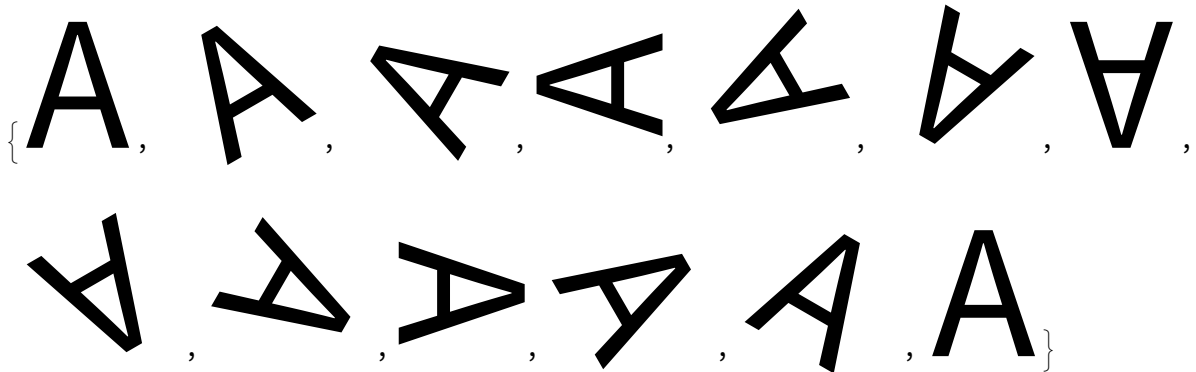
Out[314]=

```
olleh
```

In[315]:=

```
Table[Rotate[Style["A", 100], x Degree], {x, 0, 360, 30}]
```

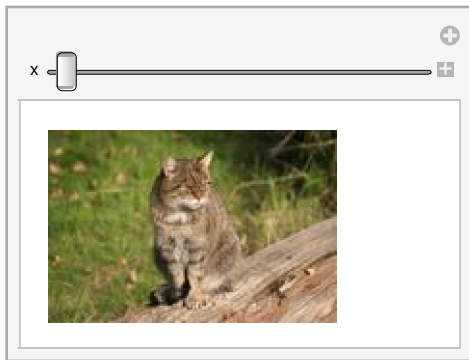
Out[315]=



In[316]:=

```
Manipulate[Rotate[domestic cat SPECIES SPECIFICATION ["Image"], x Degree], {x, 0, 180}]
```

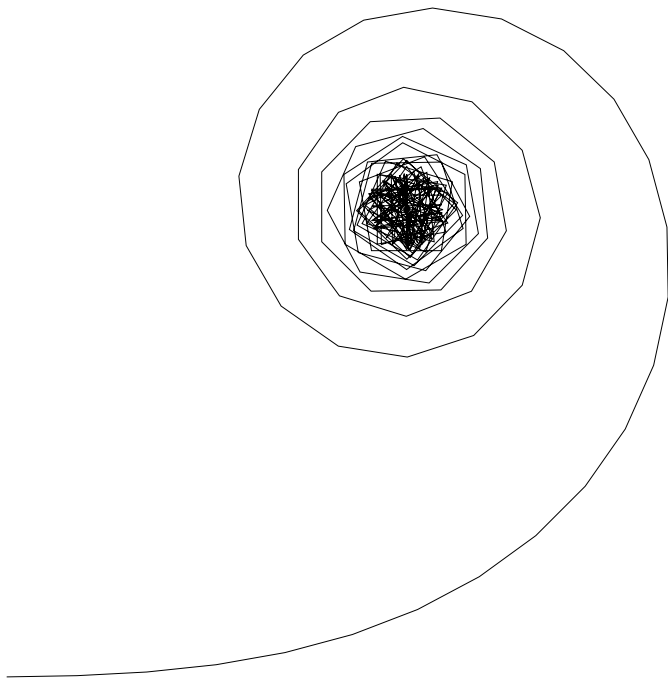
Out[316]=



In[317]:=

Graphics[Line[AnglePath[Range[180] Degree]]]

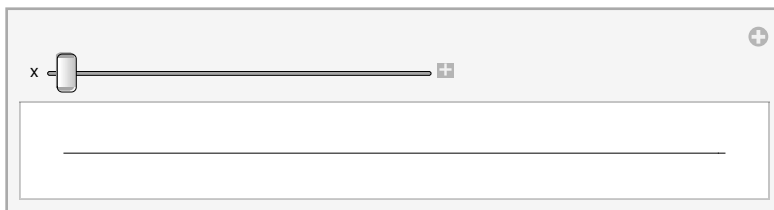
Out[317]=



In[318]:=

Manipulate[Graphics[Line[AnglePath[Table[x Degree, 100]]]], {x, 0, 360}]

Out[318]=



In[319]:=

```
Graphics[Line[AnglePath[IntegerDigits[2^10 000] * 30 Degree]]]
```

Out[319]=

