Tahm — PS 5 — 2025-02-04

EIWL3 Sections 14 and 17

Thanks for resending quickly so I could grade these with all the others.

Please see comments on p. 10.

Looks good.

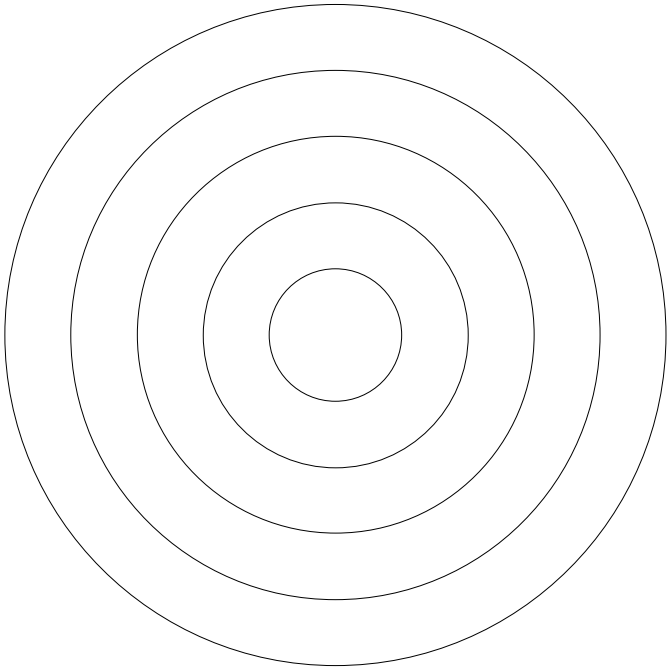
8/8

Chapter 14

In[137]:=

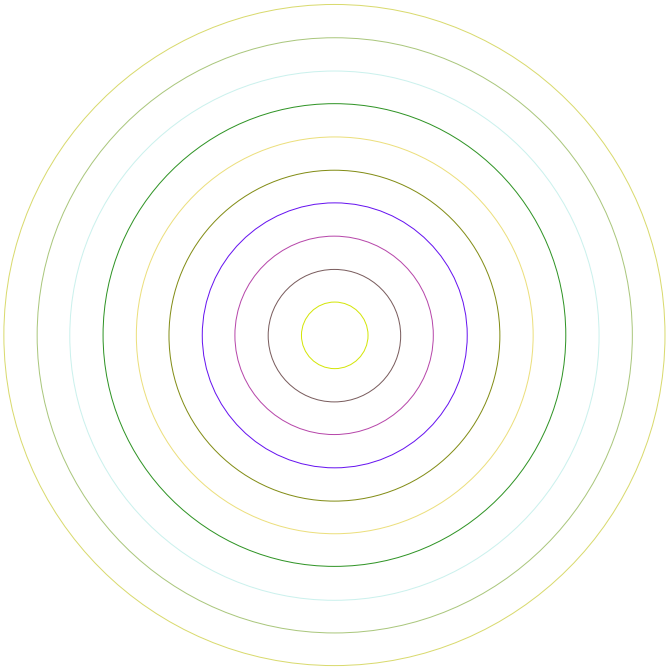
```
Graphics[Table[Circle[{1, 1}, x], {x, 1, 5}]]
```

Out[137]=



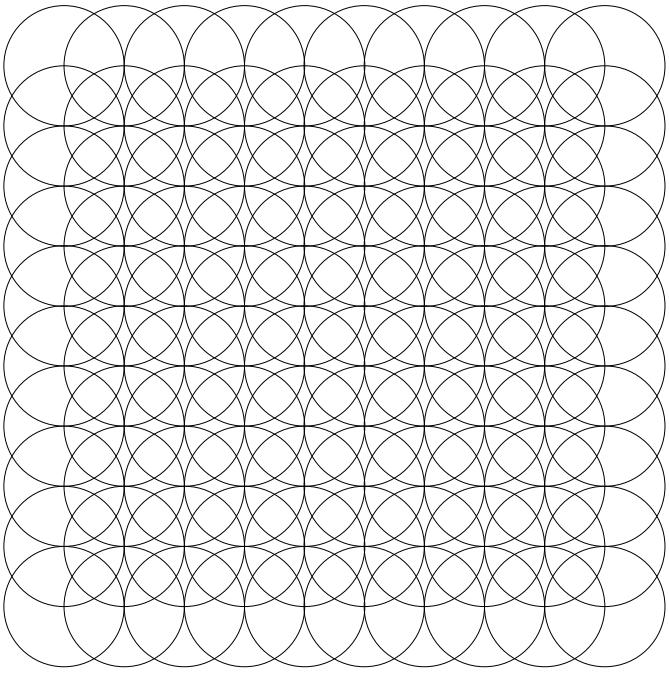
In[138]:=
```
Graphics[Table[Style[Circle[{1, 1}, x], RandomColor[]], {x, 1, 10}]]
```

Out[138]=



In[139]:=
```
Graphics[Table[Circle[{x, y}], {x, 1, 10}, {y, 1, 10}]]
```

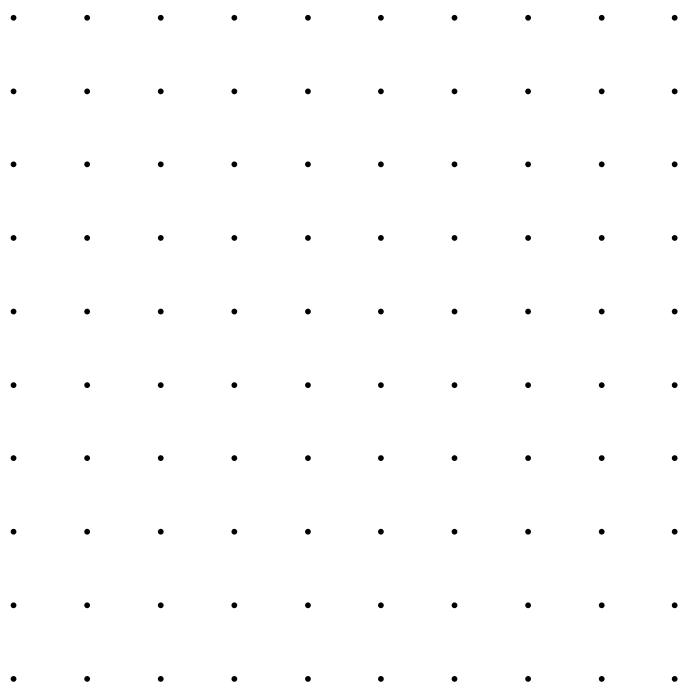
Out[139]=



In[140]:=

```
Graphics[Table[Point[{x, y}], {x, 1, 10}, {y, 1, 10}]]
```

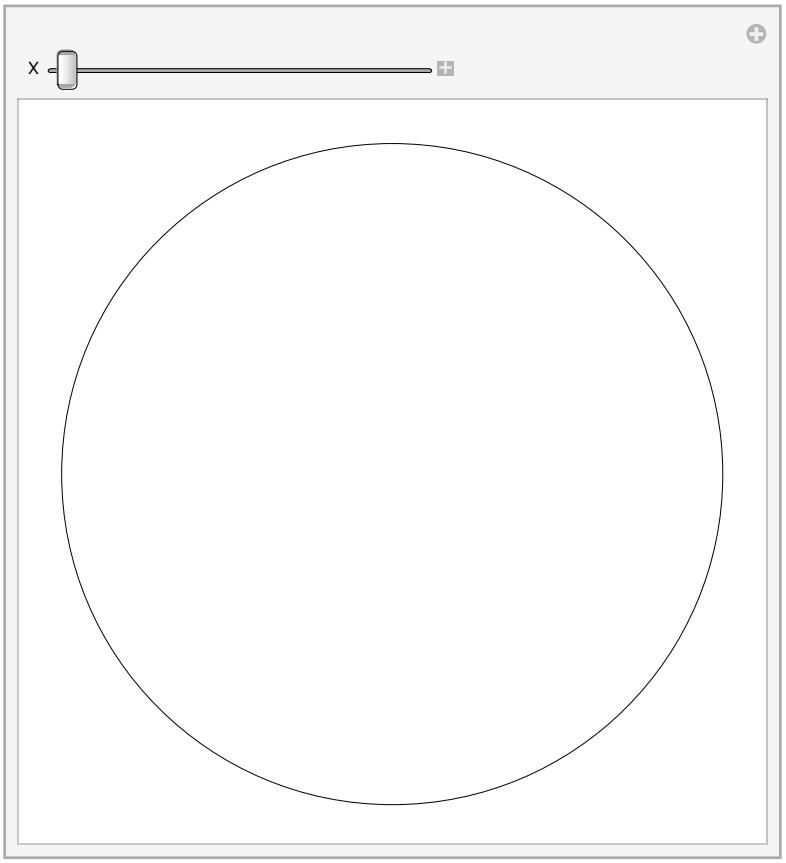
Out[140]=



In[141]:=

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

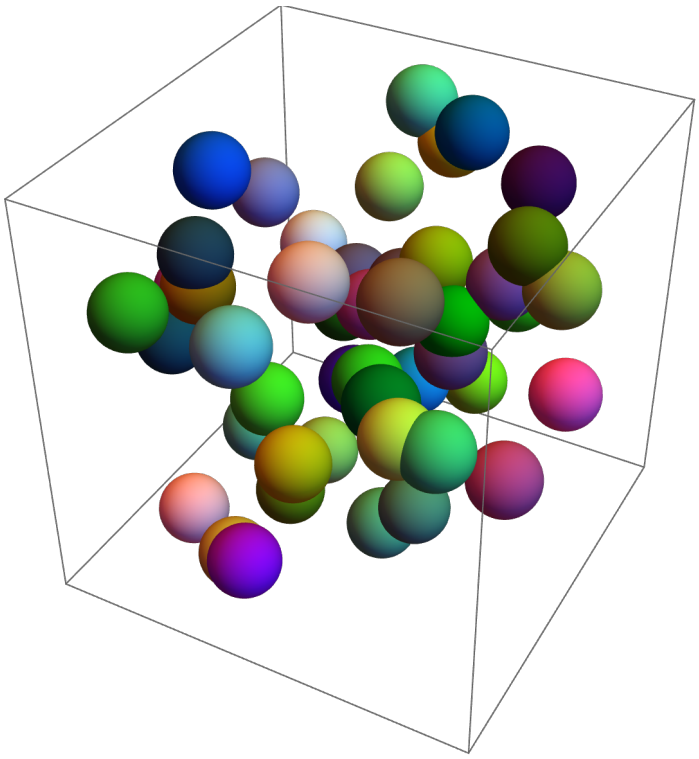
Out[141]=



In[142]:=

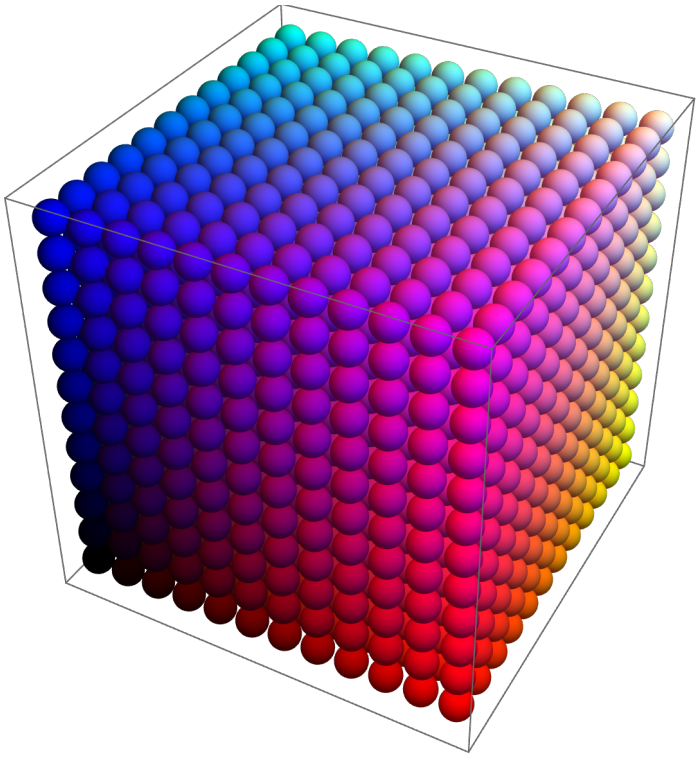
```
Graphics3D[
 Table[Style[Sphere[{RandomInteger[10], RandomInteger[10], RandomInteger[10]}],
   RandomColor[]], 50]]
```

Out[142]=



In[143]:=
```
Graphics3D[Table[Style[Sphere[{x, y, z}, 0.45], RGBColor[{x / 11, y / 11, z / 11}]],
  {x, 0, 11}, {y, 0, 11}, {z, 0, 11}]]
```

Out[143]=

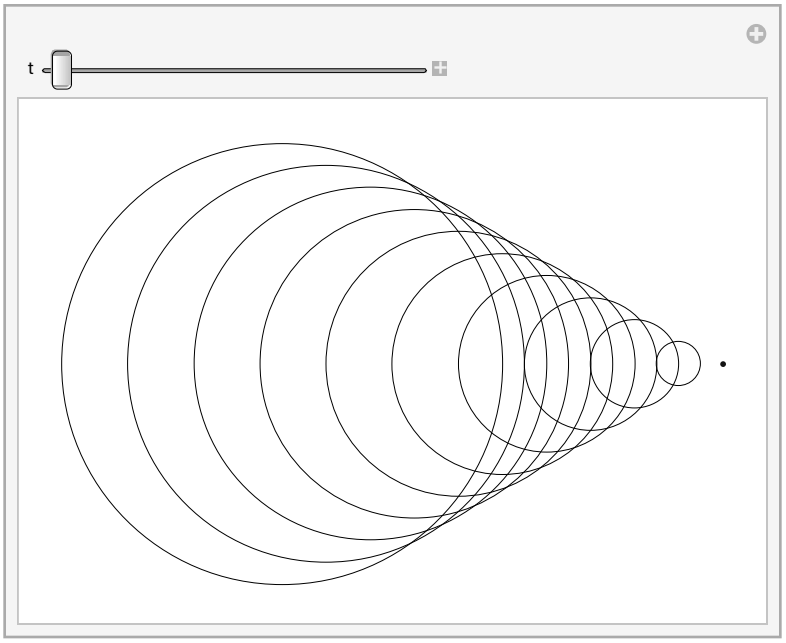


This one is lovely!

In[144]:=

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

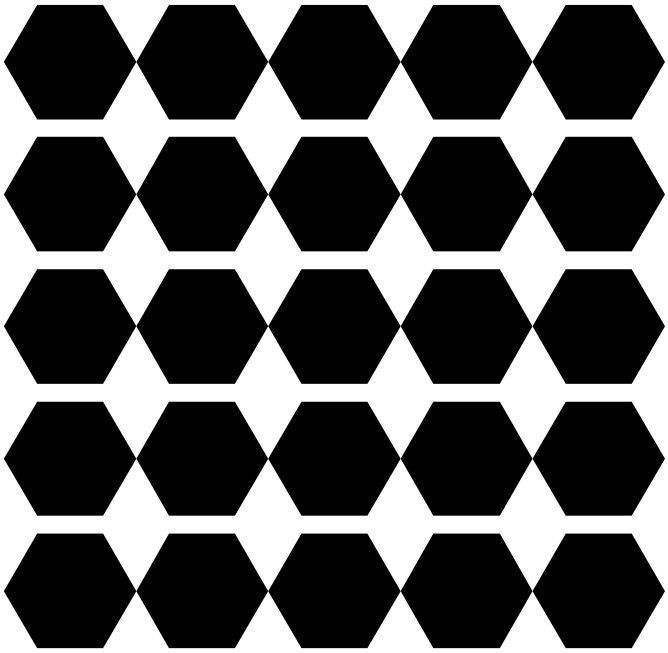
Out[144]=



In[145]:=

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

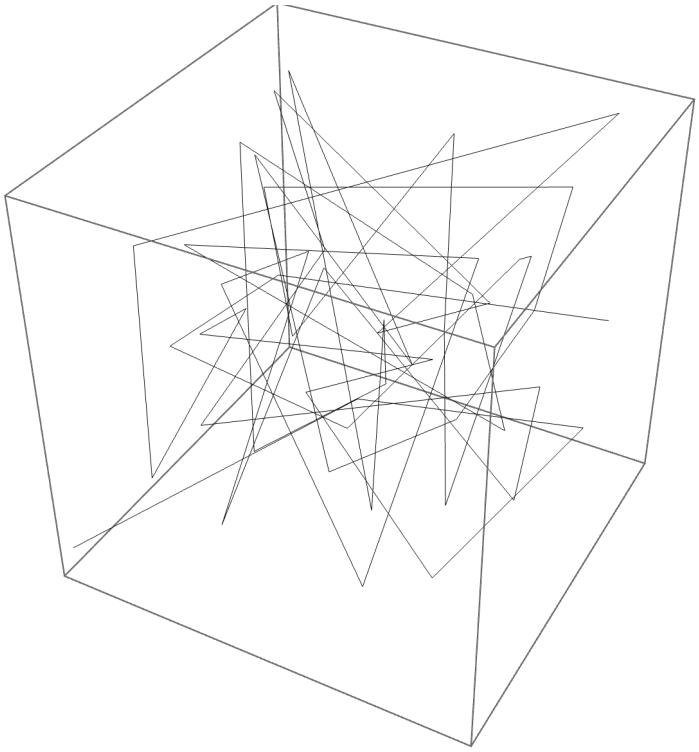
Out[145]=



In[146]:=

```
Graphics3D[Line[Table[RandomInteger[50], 50, 3]]]
```

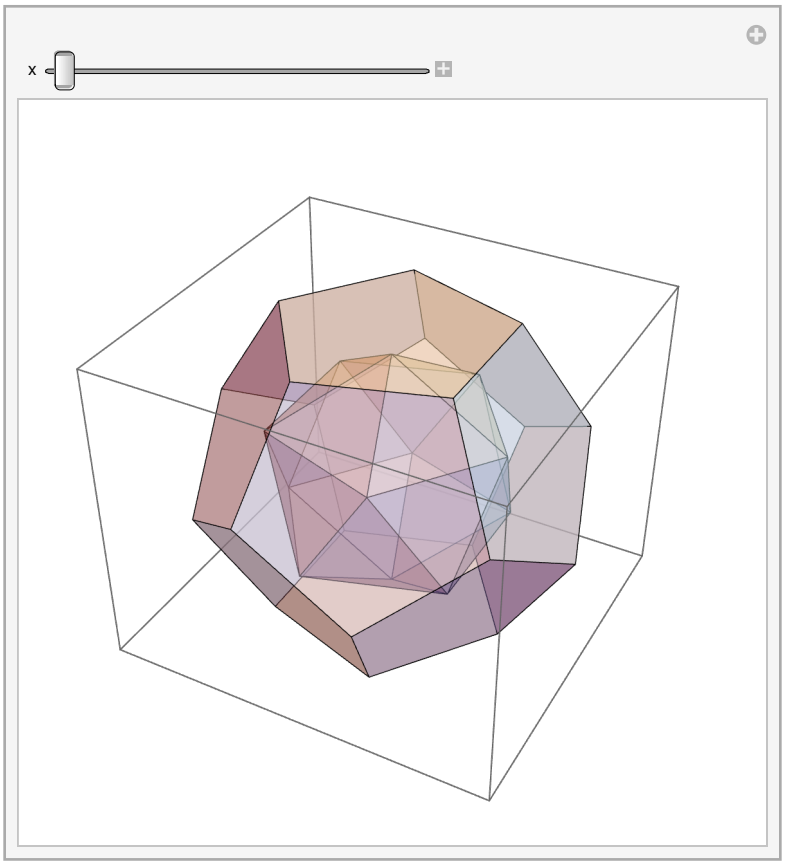
Out[146]=



In[147]:=

In[148]:=
```
Manipulate[Graphics3D[Style[
    {Dodecahedron[{0, 0}, 1], Icosahedron[{0, 0, 0}, x]}, Opacity[0.5]]], {x, 1, 2}]
```

Out[148]=



Chapter 17

In[149]:=
```
UnitConvert[4.5 lb, kg]
```

Out[149]=
```
2.04117 kg
```

In[150]:=
```
UnitConvert[60.24 mi/h, km/h]
```

Out[150]=
```
96.9469 km/h
```

In[151]:=
```
UnitConvert[1083.0 ft, mi]
```

Out[151]=
```
0.205114 mi
```

In[152]:=
```
29 032. ft / 1083 ft
```
Out[152]=
```
26.807
```

These would be more exact if you use the entities rather than typing in the values. See my solution.

In[153]:=
```
5.972*^24 kg / 7.3*^22 kg
```
Out[153]=
```
81.8082
```

In[154]:=
```
CurrencyConvert[¥2500., $]
```
Out[154]=
```
$16.28
```

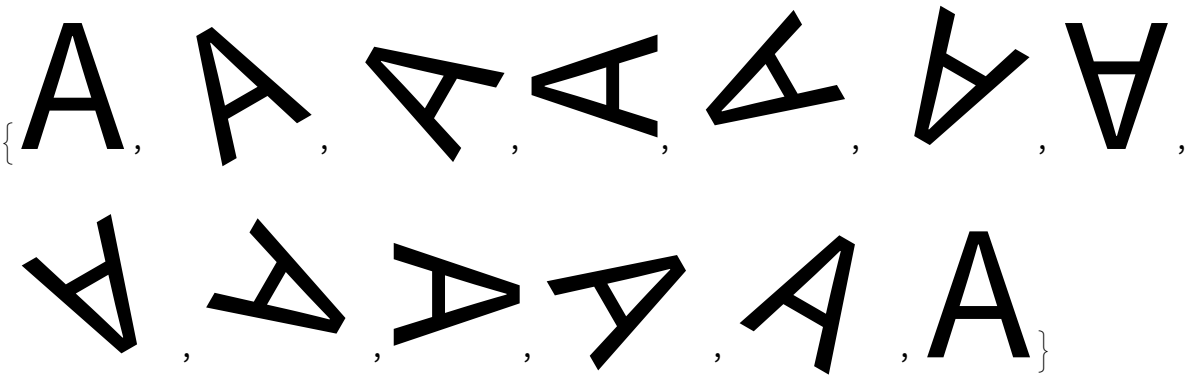
In[155]:=
```
UnitConvert[{35 oz + 0.25 sh tn + 45 lb + 9 stone}, kg]
```
Out[155]=
```
{305.353 kg}
```

The curly brackets shouldn't be there. You get a list containing 305.353 instead of just 305.353.

In[156]:=
```
UnitConvert[planets PLANETS["DistanceFromEarth"], "LightMinutes"]
```
Out[156]=
```
{11.4146 light minutes, 3.65946 light minutes,
 0. light minutes, 6.20101 light minutes, 39.2473 light minutes,
 87.3858 light minutes, 162.496 light minutes, 255.377 light minutes}
```

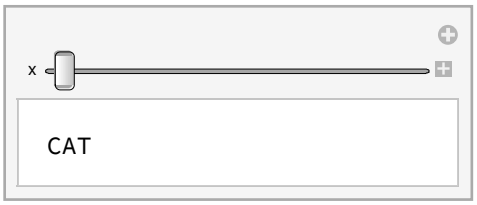
In[157]:=
```
Rotate["hello", 180°]
```
Out[157]=
```
ollǝɥ
```

In[158]:=
```
Table[Rotate[Style["A", 100], x Degree], {x, 0, 360, 30}]
```
Out[158]=



In[159]:=
```
Manipulate[Rotate["CAT", x Degree], {x, 0, 180}]
```

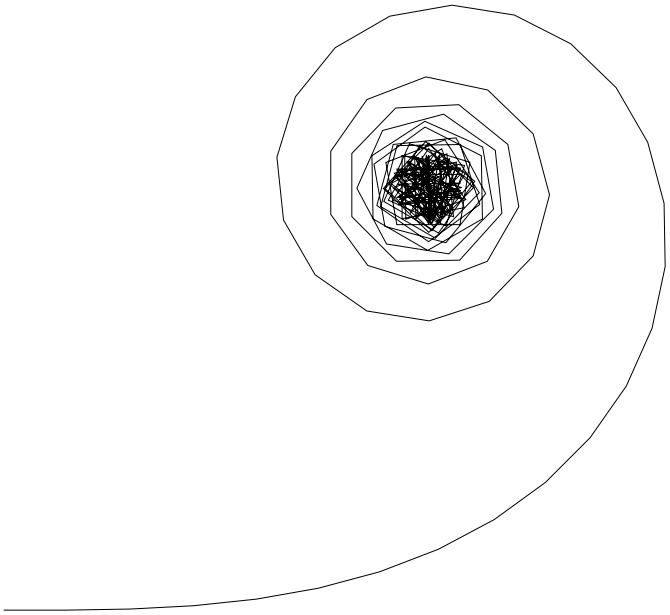
Out[159]=



I think he wanted you to get a cat image and rotate it. That's how I interpreted it.

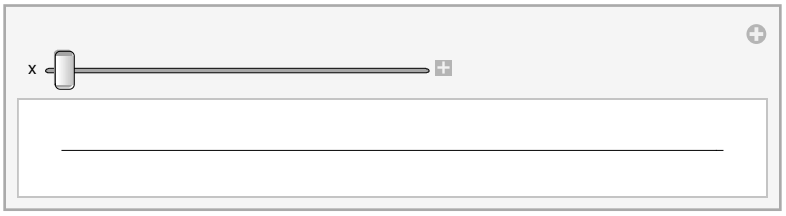
In[160]:=
```
Graphics[Line[AnglePath[Table[x Degree, {x, 0 , 180 }]]]]
```

Out[160]=



In[161]:=
```
Manipulate[ Graphics[Line[AnglePath[Table[x, 100]]]], {x, 0, 360}]
```

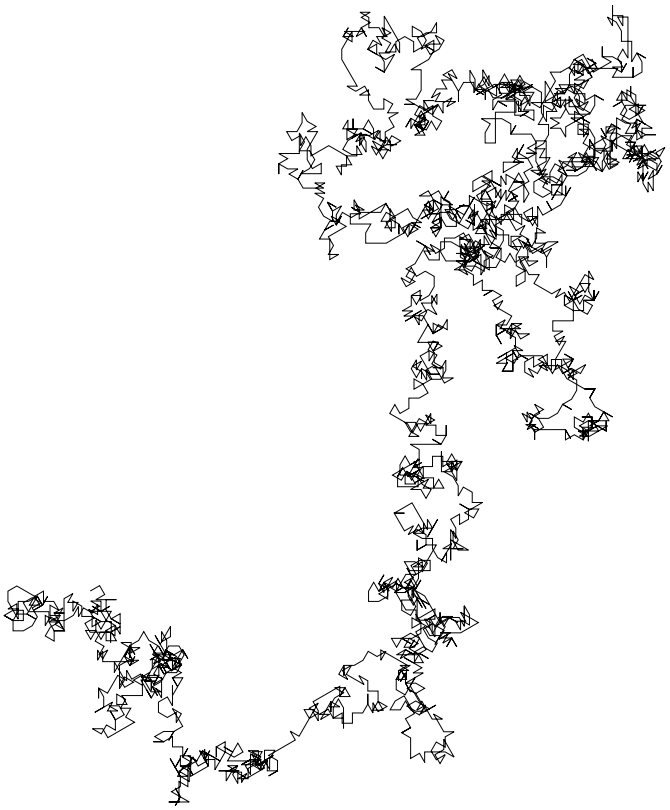
Out[161]=



In[162]:=

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

Out[162]=



In[163]:=

In[164]:=

In[165]:=