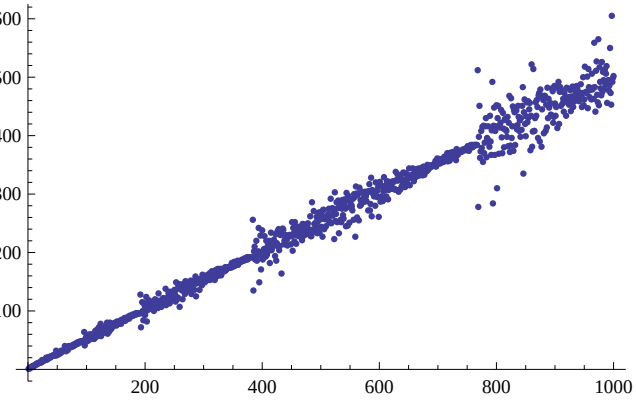
In[3]:=
```
Q[1] = Q[2] = 1;
Q[n_] := Q[n] = Q[n - Q[n - 1]] + Q[n - Q[n - 2]];
```

In[10]:=
```
ListPlot[Q /@ Range[1000]]
```

Out[10]=



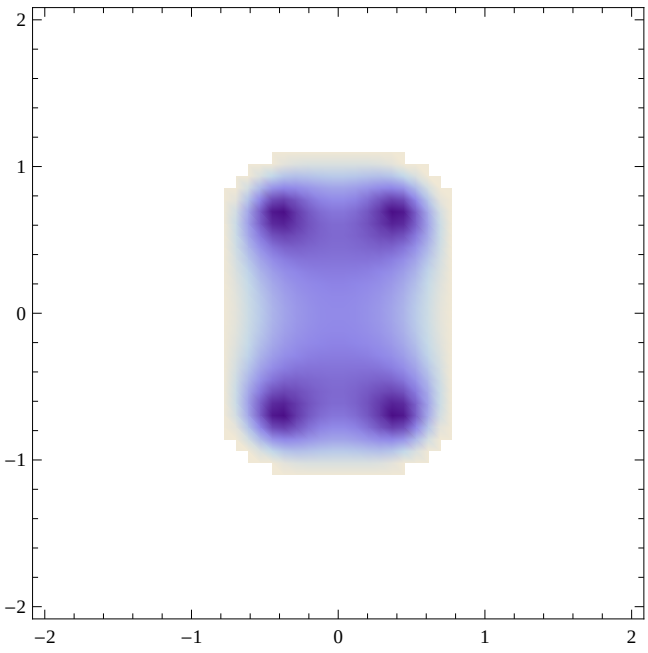
In[11]:=
```
? Nest
```

Nest[*f*, *expr*, *n*] gives an expression with *f* applied *n* times to *expr*. ≫

In[25]:=
```
Animate[
 DensityPlot[
  Abs[Nest[(#^2 + 0.3) &, x + I y, n]],
  {x, -2, 2}, {y, -2, 2}, PlotRange → {0, 1}, PlotPoints → 50
 ],
 {n, 1, 8, 1}
]
```

n

Out[25]=



In[23]:= **? Animate**

Animate[*expr*, {*u*, u_{min}, u_{max}}] generates an animation of *expr* in which *u* varies continuously from u_{min} to u_{max}.
Animate[*expr*, {*u*, u_{min}, u_{max}, *du*}] takes *u* to vary in steps *du*.
Animate[*expr*, {*u*, {u_1, u_2, …}}] makes *u* take on discrete values u_1, u_2, ...
Animate[*expr*, {*u*, …}, {*v*, …}, …] varies all the variables *u*, *v*, ... ≫