

Feigenbaum and TI

John Hanna, Teachers Teaching
with Technology

May 5, 1997

```
feigen()  
Prgm  
©1→xmin  
©4→xmax  
©0→ymin  
©1→ymax  
ClrDraw  
©For a,1,3,Δx  
© PtOn a,(a-1)/a  
©EndFor  
For a,xmin,xmax,Δx  
0.5→x  
PtText " ",xmin,ymax  
PtText "a= "&string(round(a,4)),xmin,ymax  
For i,1,40,1  
a*x*(1-x)→x  
EndFor  
For i,1,80,1  
a*x*(1-x)→x  
PtOn a,x  
EndFor  
EndFor  
EndPrgm
```

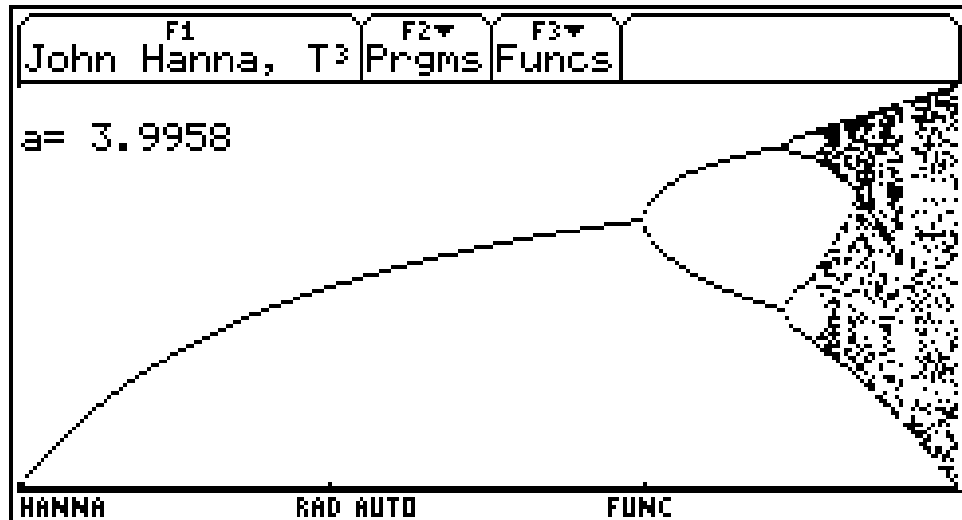


Figure 1: Feigenbaum diagram in $[1,4] \times [0,1]$

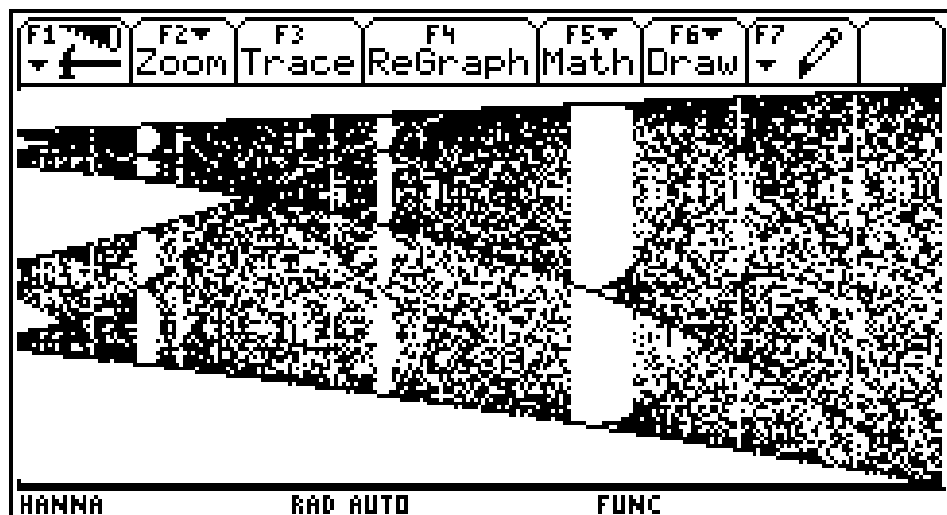


Figure 2: Zoomed in to $[3.5,4] \times [0,1]$