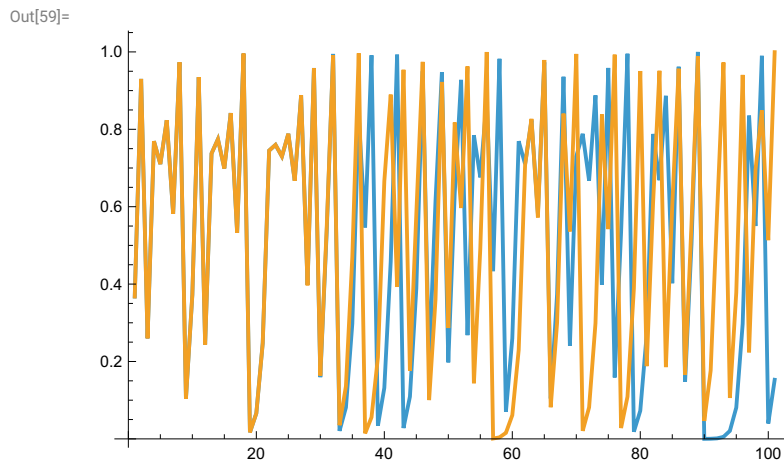


```

In[52]:= a = 4;
f[x_] := a * x * (1 - x)
g[x_] := a * (1 - 2 x)
x0 = 1.0 / E;
n = 100;
d1 = NestList[f, x0, n];
d2 = NestList[f, x0 + 0.000000000001, n];
ListLinePlot[{d1, d2}]

```



```

In[64]:= n = 1 000 000;
x = Nest[f, x0, 100];
1 / n * Sum[Log[Abs[g[x = f[x]]]], {n}]

```

Out[66]= 0.693145

```

In[60]:= Log[2.0]

```

Out[60]= 0.693147