BESTÄM ANTAL ITERATIONER:

```
> a:=30;
```

$$a := 30$$

LÄS IN FUNKTIONEN:

```
> f:=x->3.5*x*(1-x);
```

$$f := x \rightarrow 3.5\, x\, (1 - x)$$

BESTÄM STARTVÄRDE:

```
> x0:=0.37;
```

$$x0 := .37$$

BERÄKNA a st. ITERATIONER OCH LAGRA DEM I EN LISTA:

```
> x:=x0: n:='n':L:=[x]:
  for n from 1 to a do
  x:=f(x):L:= [op(L),x]
  od:
```

Listan L innehåller nu banan för *x0* under funktionen *f*:

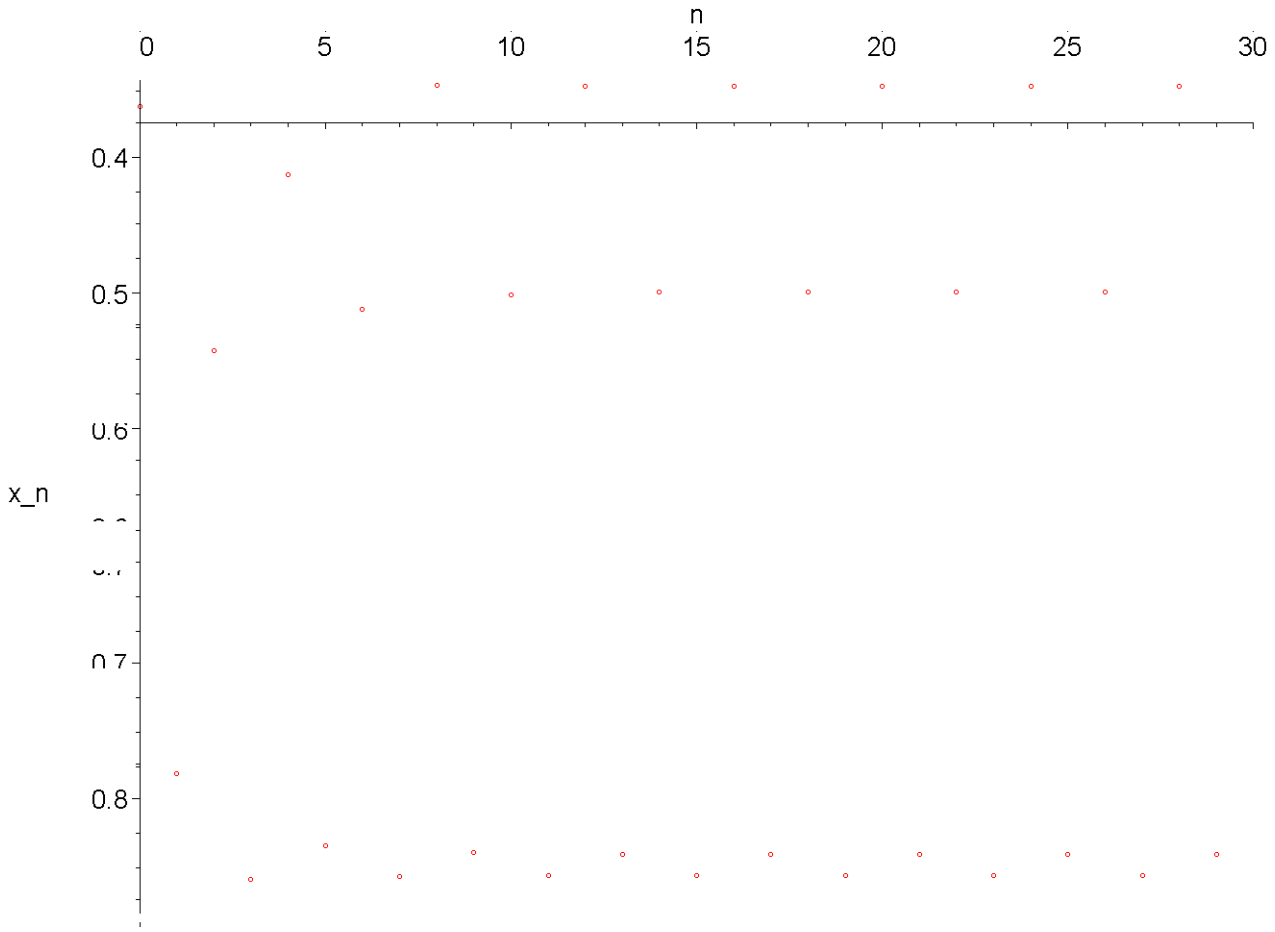
```
> L;
```

[.37, .81585, .5258357212, .8726638042,
.3889259115, .8318189142, .4896367287,
.8746241091, .3837987192, .8277404180,
.4990517644, .8749968528, .3828207614,
.8269415910, .5008821864, .8749972760,
.3828196505, .8269406800, .5008842713,
.8749972634, .3828196834, .8269407069,

.5008842097, .8749972637, .3828196827, .8269407062, .5008842111, .8749972637, .3828196827, .8269407062, .5008842111]

Plotta banan, dvs. *n*:te punkten *xn* som funktion av *n*

```
> l:=[[i-1,L[i]] $i=1..a]:
> x:='x':n:='n':plot(l,x=0..a,
  style=point,
  symbol=circle,labels=[n,x_n]);
```




```
>
```