```
function [xa,r0ut]=XA(r)
x(1) = 0.01;
for i = 1:999
 x(i+1) = r* x(i)* (1 - x(i));

x(i+1)=floor(x(i+1)*2^{(16)}) *2.^{(-16)};
 %x(i + 1) = r* xnew* (1 - xnew);
end;
xa=x(501:999);
rOut=zeros(size(xa));
r0ut(r0ut==0)=r;
% if x(end)>x(end-1)
%
       [xa]=x(end)
% else
%
       xa=x(end-1)
% end;
end
```