

```
function [s,x, r]=euler(s,x,r, lambda, gamma);  
%this file is here to calculate the euler iteration  
  
%Calculations for the variable susceptible  
ds= -lambda.*s;  
  
%Calculations for the variable infectious  
dx= -gamma.*x + lambda.*s;  
  
%Calculations for the variable recovered  
dr= gamma.*x;  
  
%Calculating  $f(t)=f(t-1)+df$   
s=s+ds;  
  
x=x+dx;  
  
r=r+dr;  
  
end
```