```matlab
t=linspace(0,20,1000);
A=[1,1];%因为 H(s)=1/(1+RCs),RC=1,
B=1;%所以根据公式能知晓 A=[1,1],B=1;
x=cos(t);
y=lsim(B,A,x,t)';
plot(t(501:1000),x(501:1000),'k');grid;hold on
plot(t(501:1000),y(501:1000),'r');legend('x','y');
```
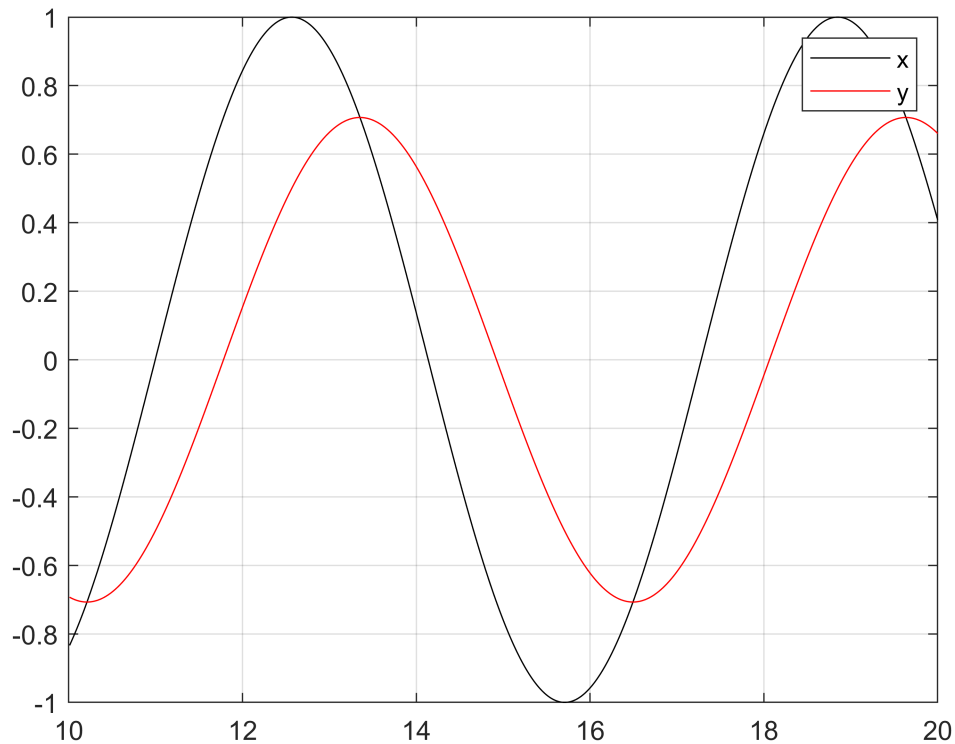


```matlab
%according to the figure,we can know that the amplitude is lower,the phase
%delay,
%according to the formula Y(s)=H(s)X(s),it is known that
%Y(s)=(1-jw)/(1+w^2)X(s),the amplitude of Y(s) is lower than X(s),the phase
%of Y(s) is different to the phase of X(s)
```