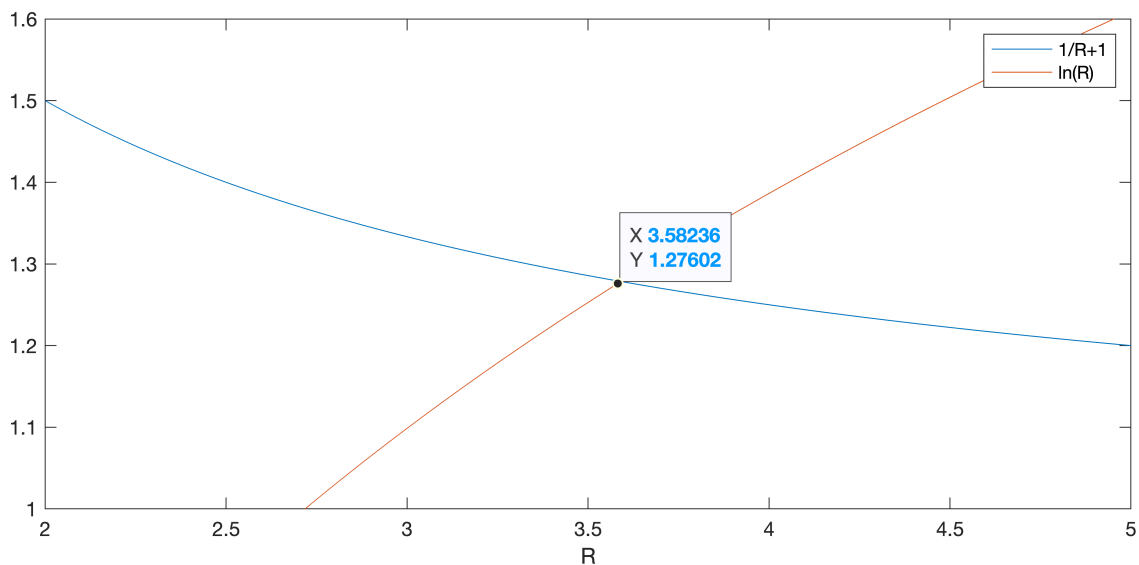


HW5 Q3

graphical solution

```
R=linspace(0,10,10000);  
plot(R,1./R+1);  
hold on  
plot(R,log(R));  
ylim([1,1.6]);  
xlim([2,5]);  
ax = gca;  
chart = ax.Children(1);  
datatip(chart,3.582,1.276);  
xlabel('R');  
legend('1/R+1','ln(R)');  
set(gcf,'position',[200,0,700,300])
```



Numeric

```
syms R  
eqn = 1/R+1-log(R) == 0
```

eqn =

$$\frac{1}{R} - \log(R) + 1 = 0$$

```
S = solve(eqn);  
R = vpa(S)
```

R = 3.5911214766686221366492229257416