

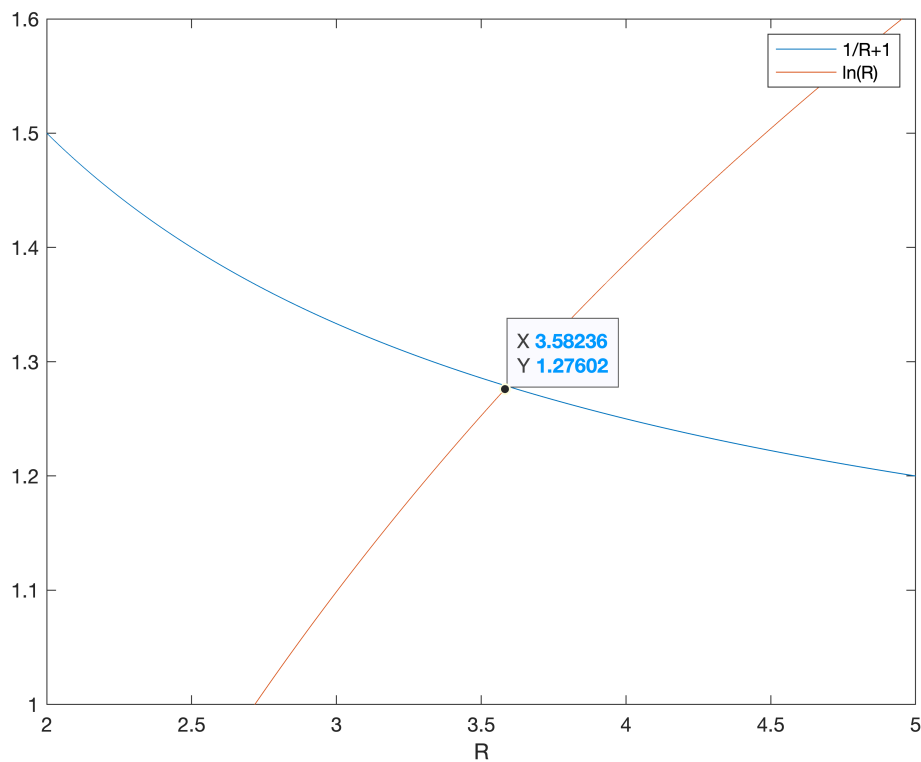
HW5 Q3

graphical solution

```
R=linspace(0,10,10000)
```

```
R = 1×10000  
      0      0.0010      0.0020      0.0030      0.0040      0.0050      0.0060      0.0070 ...
```

```
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)')
```



Numeric

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

```
eqn =
```

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

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

```
var = 3.5911214766686221366492229257416
```