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```

Kp=25;
Kd=5.194;
p=6.8;
beta=p;
P=tf(2,[1 0.1 5]);
C=tf([Kd Kp],1);
CP=series(C,P)
Q=tf(beta,[1 p]);
time=0:0.1:10;
H=series(Q,CP);
F_cl=feedback(H,1);
step(F_cl,time)
[z,p,k]=zpkdata(H,'v')

```

*CP =*

$$\frac{10.39 s + 50}{s^2 + 0.1 s + 5}$$

*Continuous-time transfer function.*

*z =*

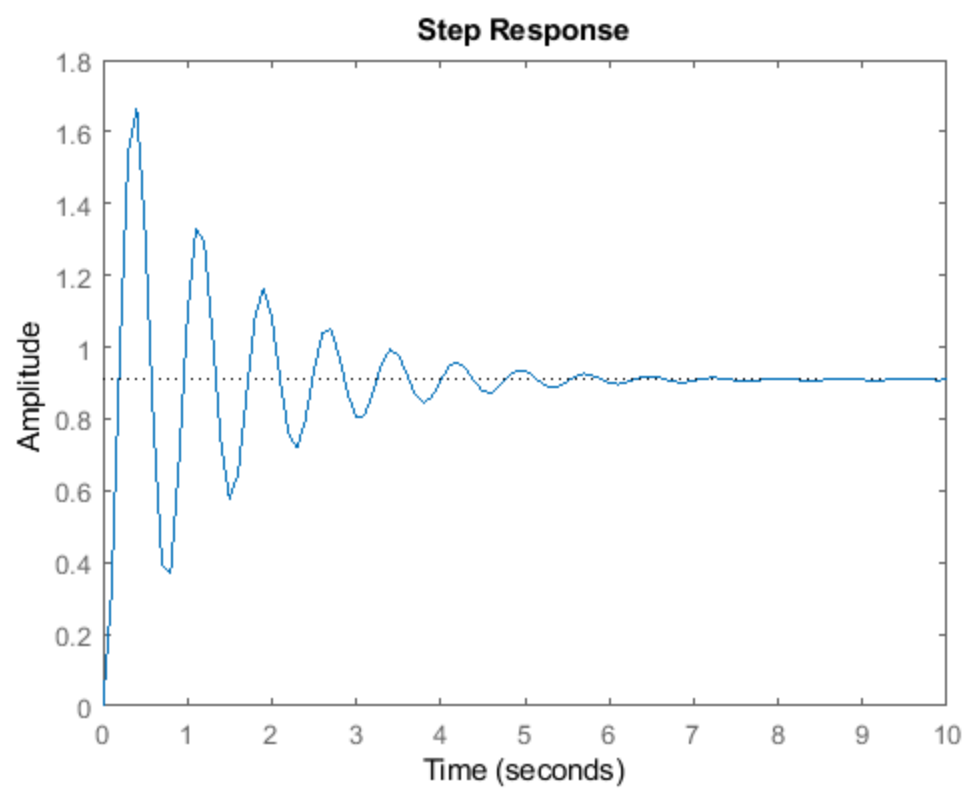
$$-4.8132$$

*p =*

$$\begin{aligned} &-6.8000 + 0.0000i \\ &-0.0500 + 2.2355i \\ &-0.0500 - 2.2355i \end{aligned}$$

*k =*

$$70.6384$$



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