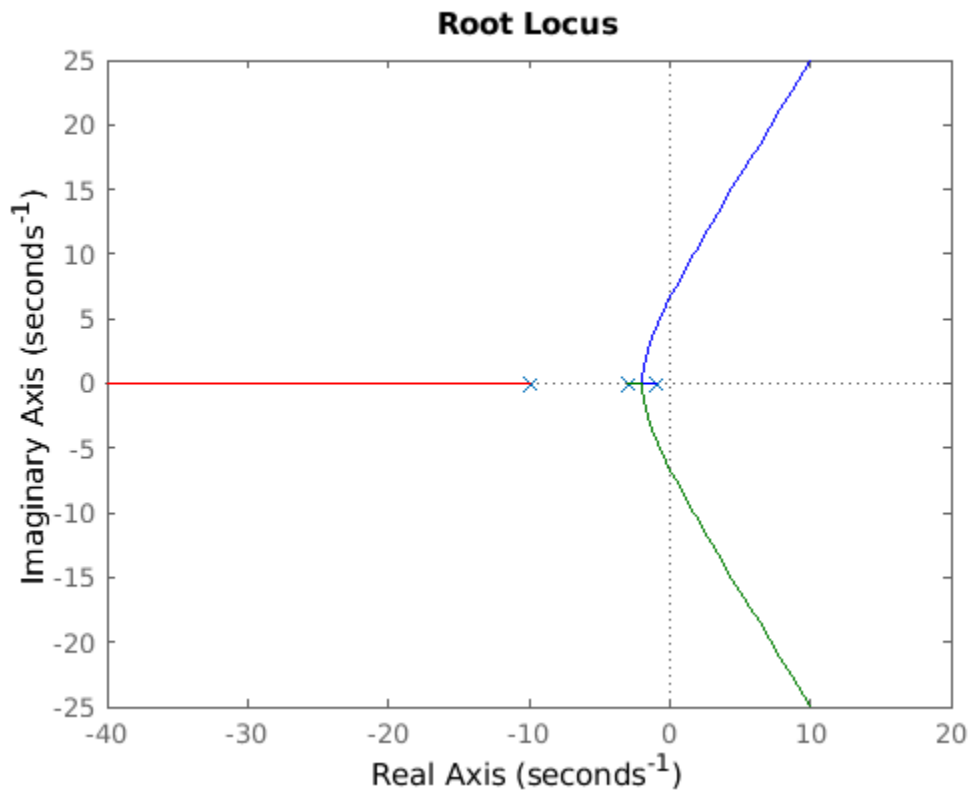

```
% Nise Problem 9.1
```

```
G = zpk([], [-1, -3, -10], 1);
```

```
rlocus(G)
```



```
K1 = 73;
```

```
rpole = -1.5;
```

```
zeroc = rpole / 10;
```

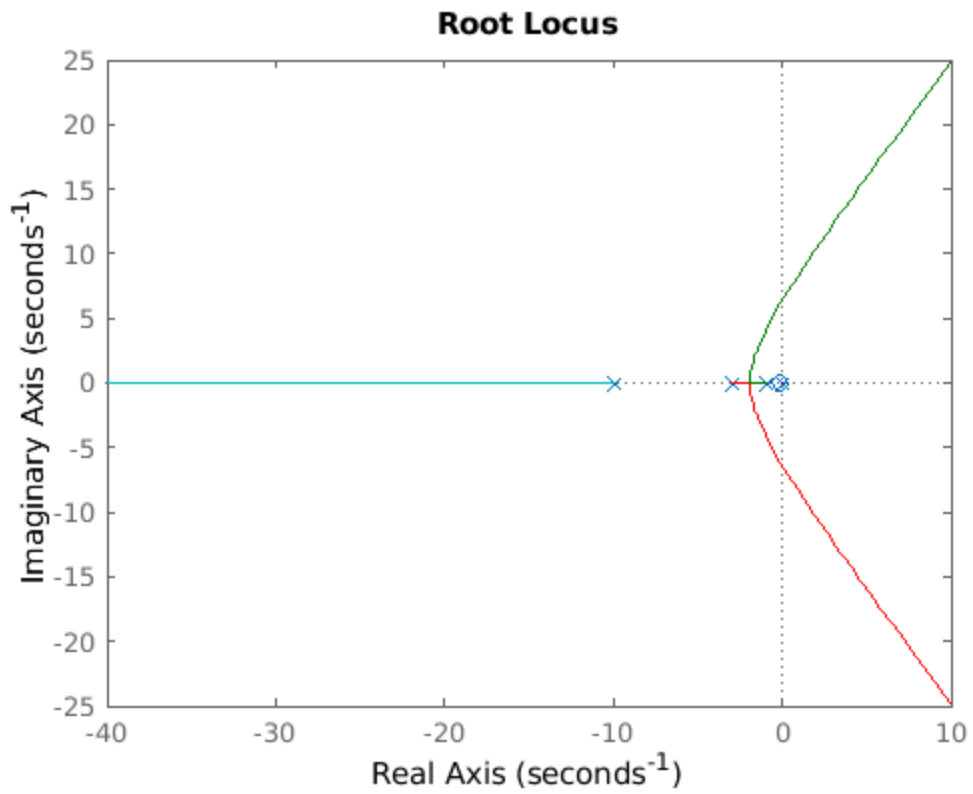
```
C = zpk([zeroc], [0], K1)
```

```
rlocus(C * G)
```

```
C =
```

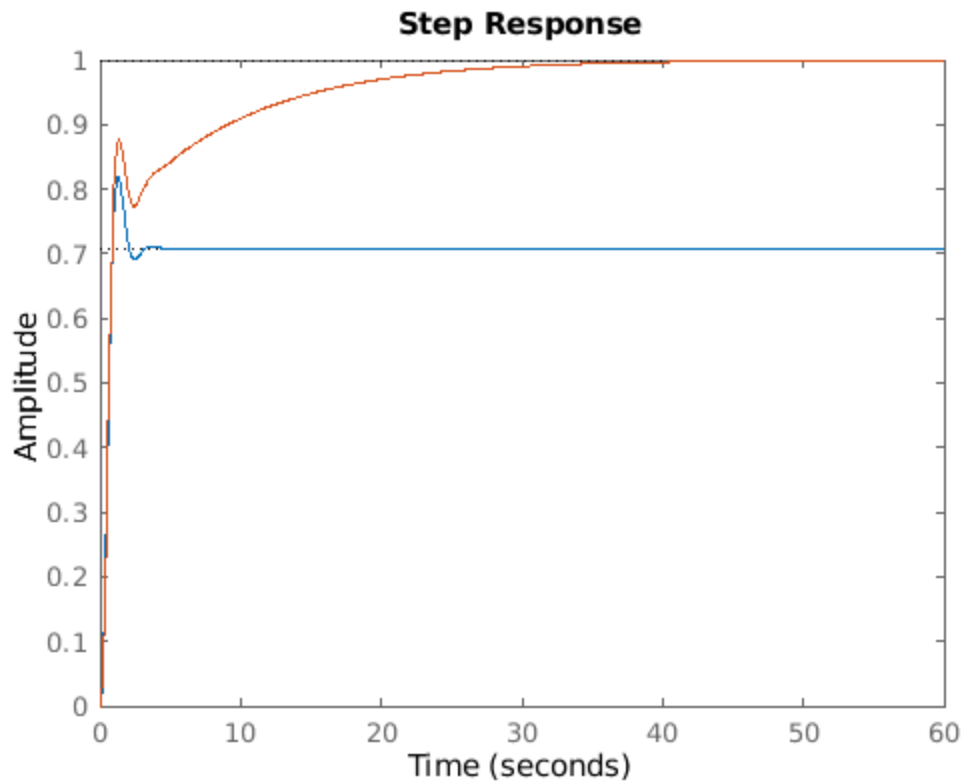
$$\frac{73 (s+0.15)}{s}$$

Continuous-time zero/pole/gain model.



K2 = 0.983;

```
step(feedback(K1 * G, 1))  
hold on  
step(feedback(K2 * C * G, 1))  
hold off
```



```
zeroc2 = rpole / 5;
```

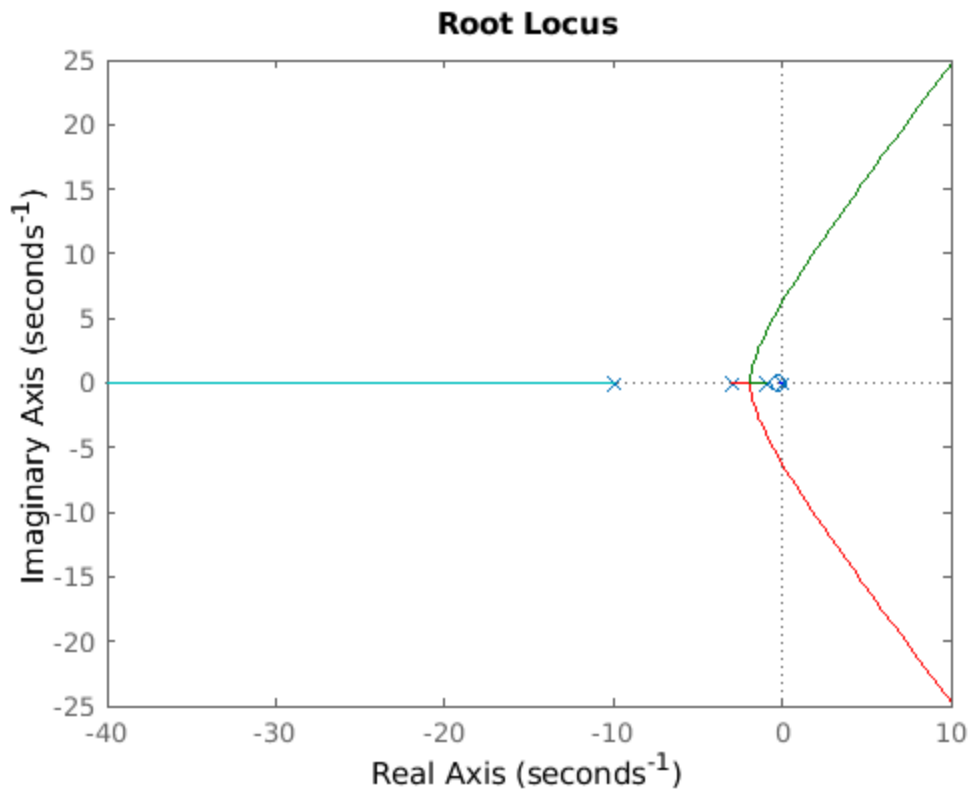
```
C2 = zpk([zeroc2], [0], K1)
```

```
rlocus(C2 * G)
```

```
C2 =
```

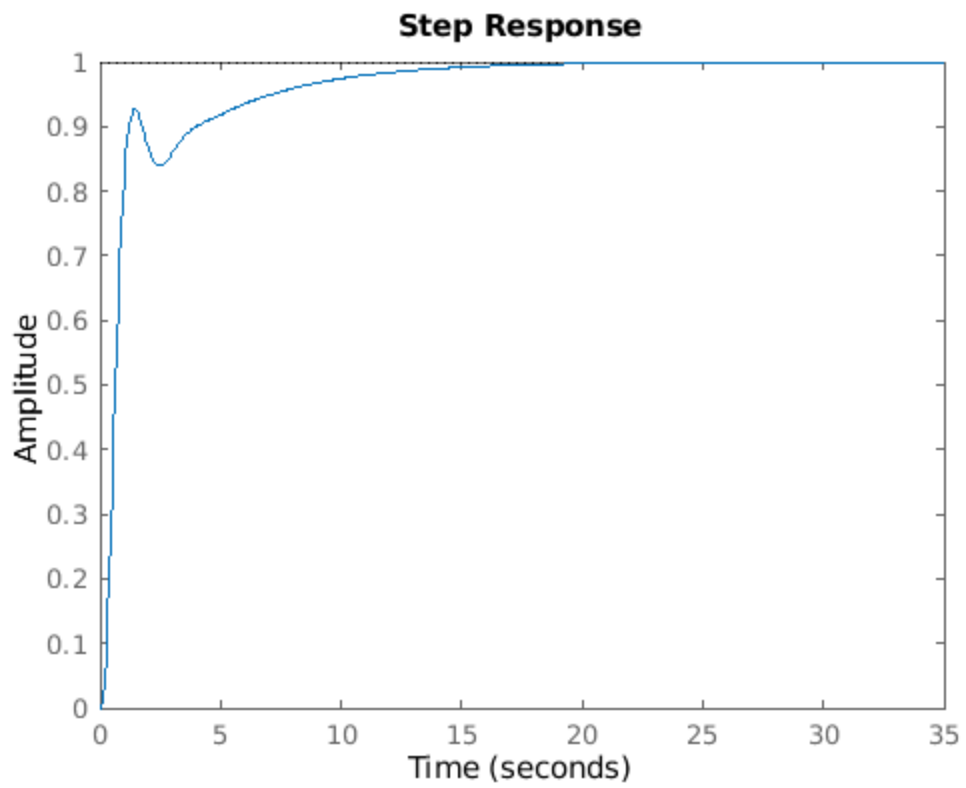
$$\frac{73 (s+0.3)}{s}$$

Continuous-time zero/pole/gain model.



K22 = 0.939;

```
step(feedback(K22 * C2 * G, 1))  
hold on
```



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