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```
%%MATLAB FILE%%
%Problem #6
%Ogata B-10-3
```

```
num1=[1,5];
den1=[1];
num2=[10];
den2=[1,3,2,0];
num3=[0,5,1];
den3=[1];

sys1=tf(num1,den1);
sys2=tf(num2,den2);
sys3=tf(num3,den3);

sys=series(sys1,sys2);
sys_ClosedLoop=feedback(sys,sys3)
```

```
sys_ClosedLoop =
```

$$\frac{10 s + 50}{s^3 + 53 s^2 + 262 s + 50}$$

*Continuous-time transfer function.*

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