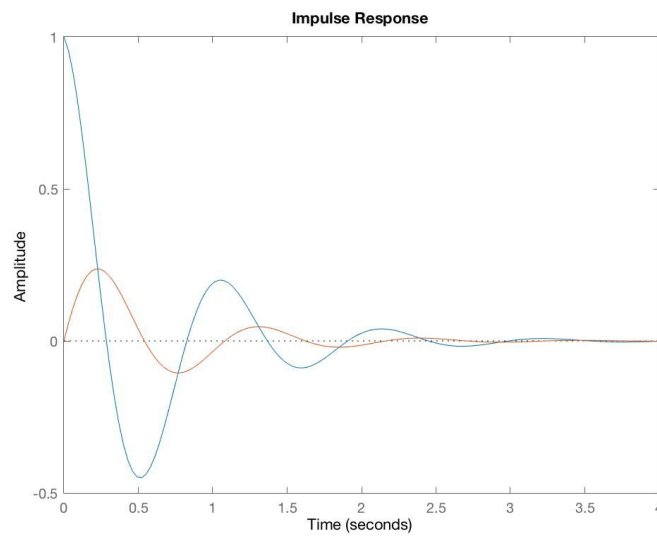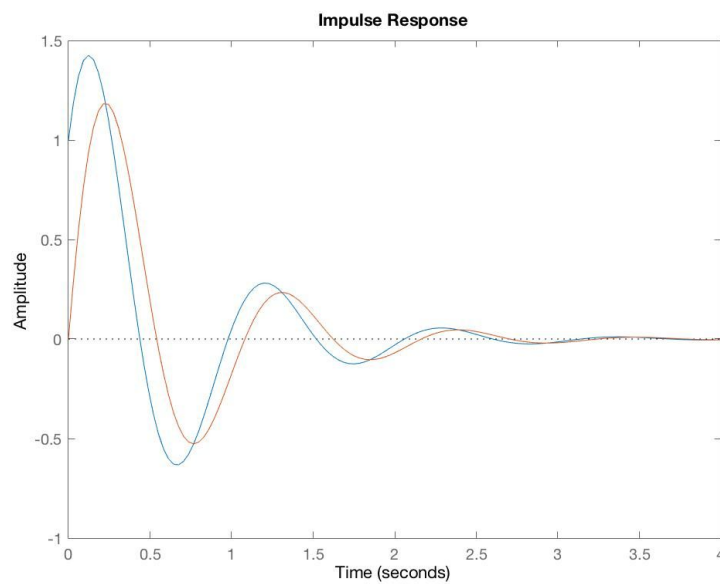Ryan St. Pierre (ras70)
Problem 7

Below are the transfer functions with their no-zero approximation. The impulse response of the given transfer function is given in blue and the impulse response of the approximated transfer function is given in orange.
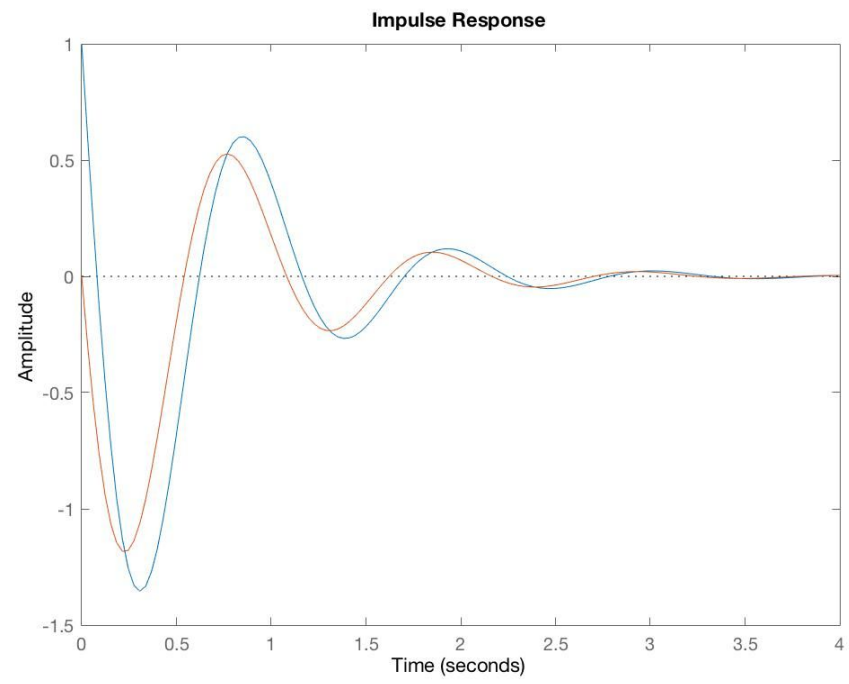
a)

b)

c)

Impulse Response

Amplitude vs Time (seconds)

Code

```
sysa = tf([1 2],[1 3 36])
sysa2 = tf([2],[1 3 36])
impulse(sysa)
hold on;
impulse(sysa2)
hold off;

figure(2)
sysb = tf([1 10],[1 3 36])
sysb2 = tf([10],[1 3 36])
impulse(sysb)
hold on;
impulse(sysb2)
hold off;

figure(3)
sysc = tf([1 -10],[1 3 36])
sysc2 = tf([-10],[1 3 36])
impulse(sysc)
hold on;
impulse(sysc2)
hold off;
```