



TAREA 11

GUTIERREZ MONDRAGON CARLOS

```
>> num=[1 5 6];  
>> den=[1 15 74 120];  
>> t=[0:.3:15];  
>> printsys(num,den);
```

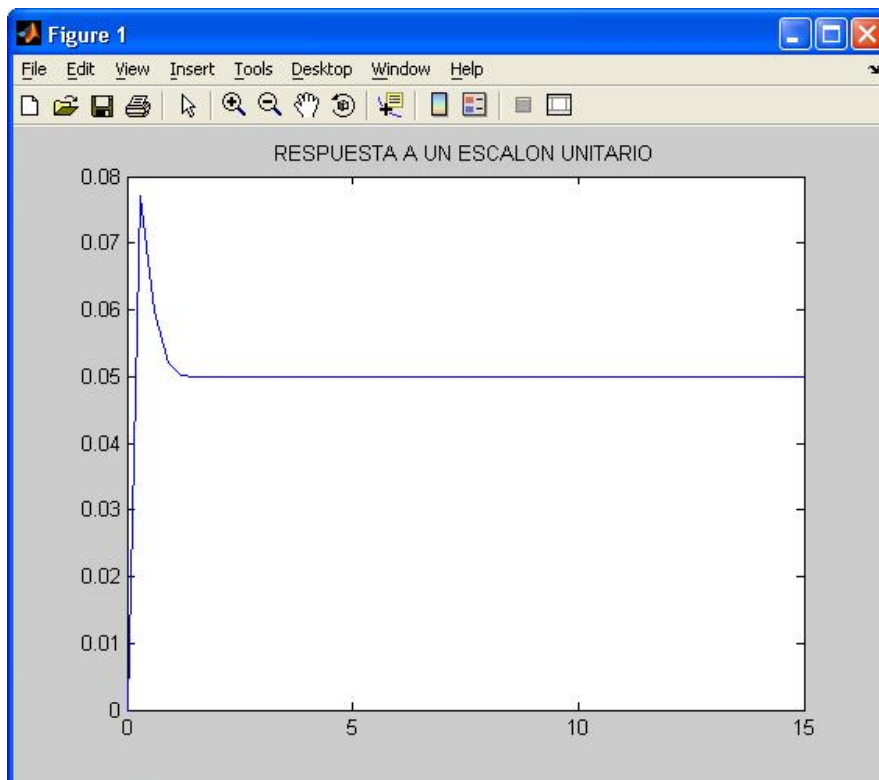
Función de transferencia

num/den =

$$\frac{s^2 + 5s + 6}{s^3 + 15s^2 + 74s + 120}$$

RESPUESTA A UN ESCALON UNITARIO

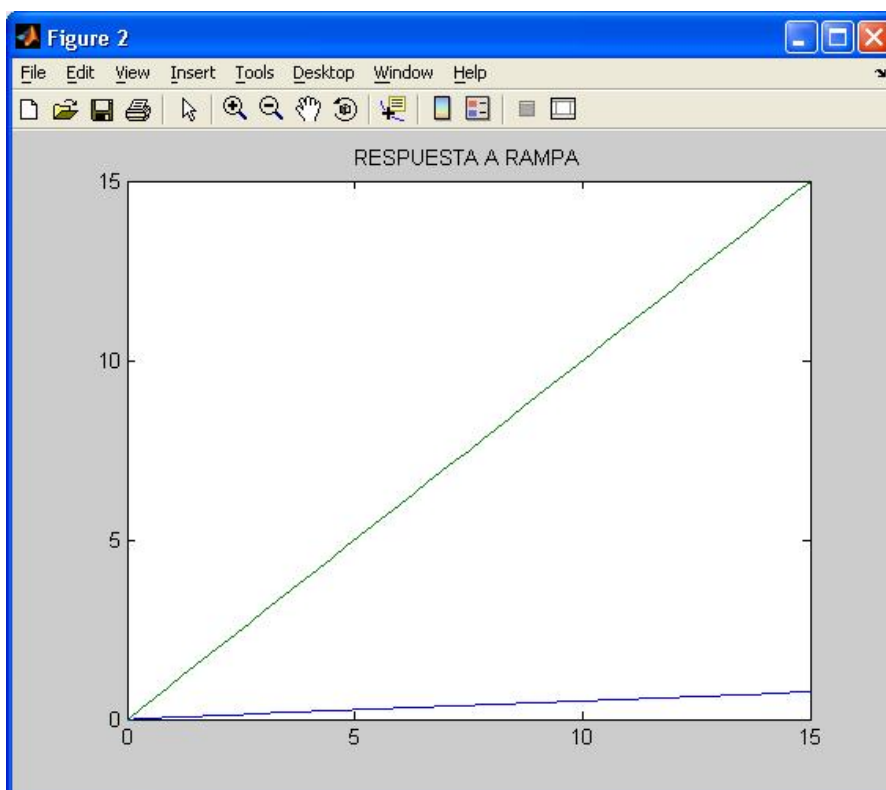
```
>> figure(1)  
>> y=step(num,den,t);  
>> plot(t,y);  
>> title('RESPUESTA A UN ESCALON UNITARIO');
```





RESPUESTA A RAMPA

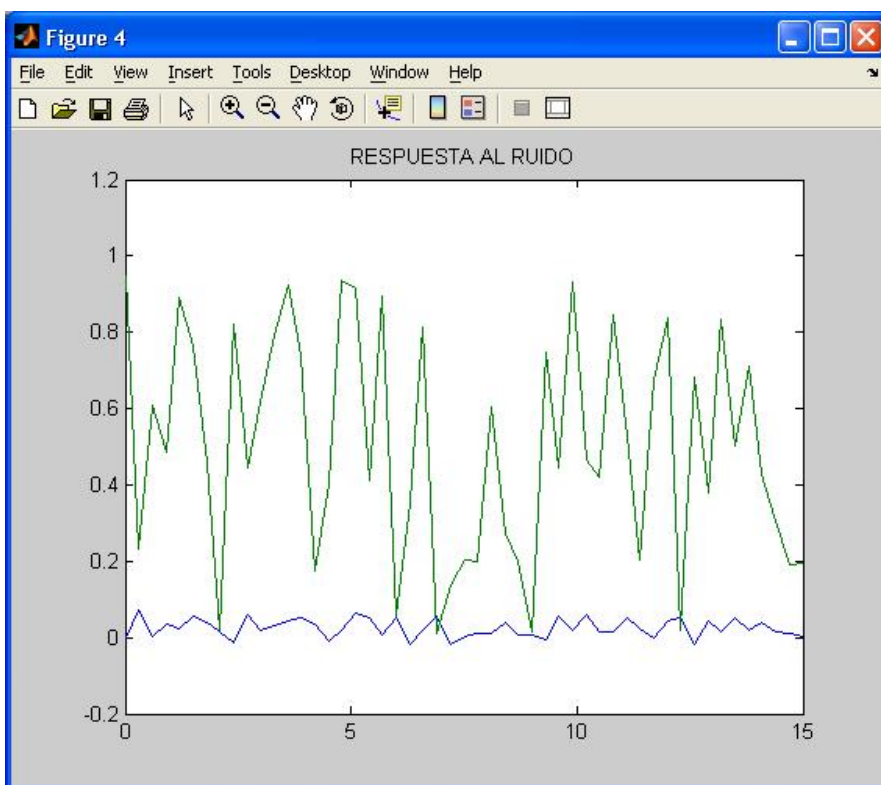
```
>> figure(2)
>> ramp=t;
>> y=lsim(num,den,ramp,t);
>> plot(t,y,t,ramp);
>> title('RESPUESTA A RAMPA');
```





RESPUESTA AL RUIDO

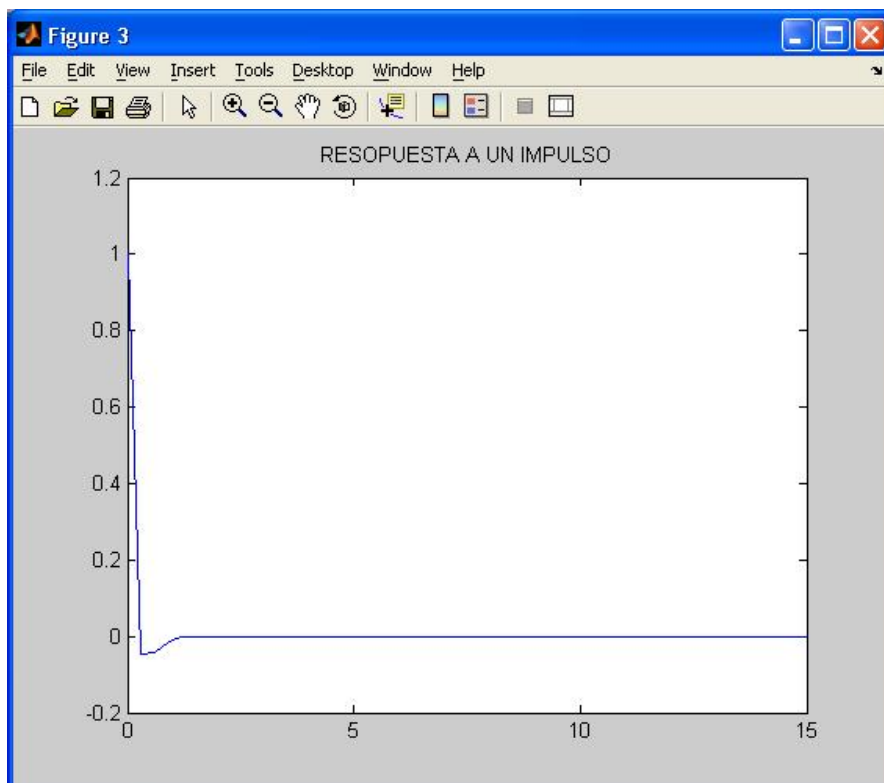
```
>> figure(4)
>> noise=rand (size(t));
>> y=lsim(num,den,noise,t);
>> plot(t,y,t,noise);
>> title('RESPUESTA AL RUIDO');
```





RESPUESTA A UNIMPULSO

```
>> figure(1)
>> y=impz(num,den,t);
>> plot(t,y);
>> title('RESPUESTA A UNIMPULSO');
```





PATRON DE POLOS Y CEROS

```
>> pzmap(num,den);  
>> figure(5)
```

