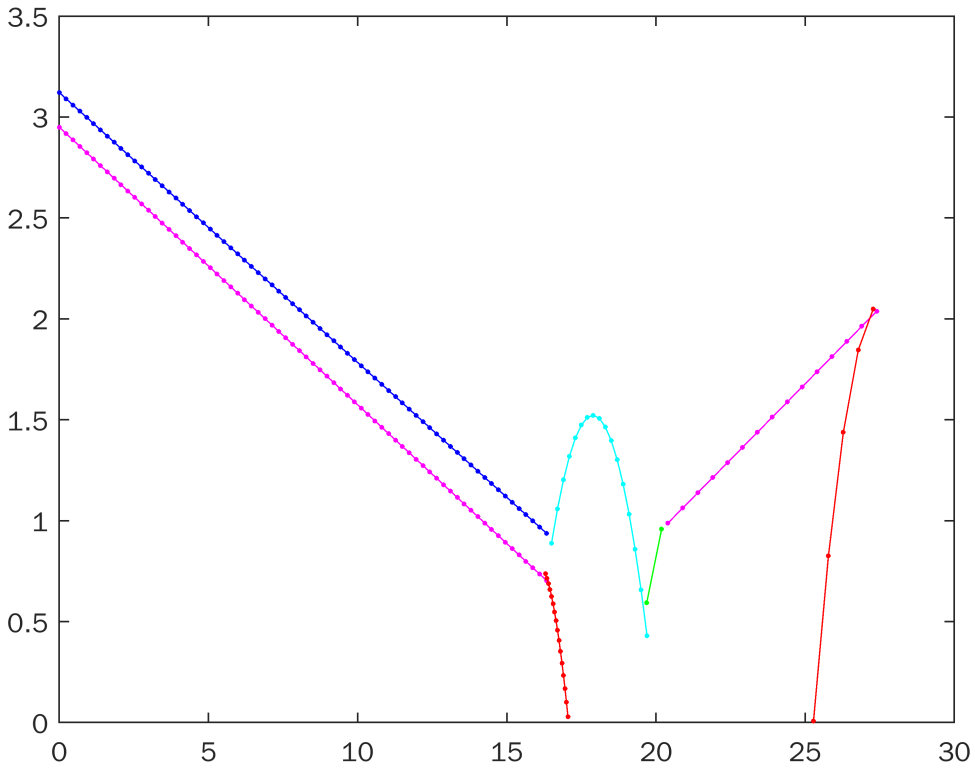
```
close all;
clear;

%xf=input('Definir la x final del dominio de la funcón: ');
%xF=input('Define la x final del dominio de tu segunda funcion: ');
%f=@ (x) 0.0000533*x.^4 - 0.02*x.^2 - 0.07*x + 3.55; %% Función h1
f=@ (x) (51.59/16.53) - (2.21*x/16.53); %% Función r1
g=@ (x) -0.331*x.^(2) + 11.839*x - 104.34;  %% Función u
%h=@ (x) (1/410)*(-249 + 25*x); %% Función p
m=@ (x) -0.72*x.^(2) + 29.4431*x - 300; %% Función p1
n=@ (x) -((14.81)/(7.2)) + ((1.08)/(7.2))*x; %% Función s

%% Funciones de abajo (para crear el volumen)
%q_{1}(x)=Si(x<27.1518 ∧ x>25.2759, -0.41 x^(2)+22.57 x-308.54)
z=@ (x) -0.41*x.^(2) + 22.57*x - 308.54; %% Función q1
y=@ (x) (51.26/17.38) - (2.39/17.38)*x; %% Función g1
x=@ (x) -0.7*x.^2 + 22.4*x - 178.4; %% Función f

%%f(x)=Si(x≥15.79 ∧ x<17.07, -0.7 x^(2)+22.4 x-178.4)


%mallax=[0:0.05:100];%valores de x dependiendo de cada función%
mallaf  = f(0:0.23:16.4);
malla_f = (0:0.23:16.4);
mallag  = g(16.5:0.2:19.7); %Genera un arreglo de mi malla x en mi función f%
malla_g = (16.5:0.2:19.7);
mallam  = m(19.69:0.5:20.4);
malla_m = (19.69:0.5:20.4);
mallan  = n(20.3:0.5:27.59);
malla_n = (20.4:0.5:27.59);

%% Por dentro
mallaz  = z(25.28:0.5:27.5);
malla_z = (25.28:0.5:27.5);
mallay  = y(0:0.23:16.4);
malla_y = (0:0.23:16.4);
mallax  = x(16.3:0.05:17.07);
malla_x = (16.3:0.05:17.07);

figure (1)
plot(malla_f, mallaf,'.-b' );
hold on;
plot(malla_g, mallag,'.-c');
hold on;
plot(malla_m, mallam,'.-g');
hold on;
plot(malla_n, mallan, '.-m');
hold on;
%%
plot(malla_z, mallaz, '.-r');
```

```
hold on;
plot(malla_y, mallay, '.-m');
hold on;
plot(malla_x, mallax, '.-r');
hold on;
```




```
figure(2)
[X1,Y1,Z1] = cylinder(mallaf); %cylinder hace de una el solido de revolución (con volum
Z1 = 16.5 * Z1;
surf(X1,Y1,Z1); %Surf toma todos los valores y los junta con una superficie
hold on;

%figure()
[X2,Y2,Z2]=cylinder(mallag);
Z2 = (19.57 - 16.5) * Z2 + 16.5;
surf(X2,Y2,Z2);
hold on;

%figure()
%[X3,Y3,Z3] = cylinder(mallah);
%Z3 = (19.69 - 19.56) * Z3 + 19.57;
%surf(X3,Y3,Z3);
%hold on;
```

```
%figure()
[X4,Y4,Z4] = cylinder(mallam);
Z4 = (20.42 - 19.69) * Z4 + 19.69;
surf(X4,Y4,Z4);
hold on;

%figure()
[X5,Y5,Z5] = cylinder(mallan);
Z5 = (27.59 - 20.4) * Z5 + 20.4;
surf(X5,Y5,Z5);
hold on;

%% Por dentro
[X6,Y6,Z6] = cylinder(mallaz);
Z6 = (27.23 - 25.28) * Z6 + 25.28;
surf(X6,Y6,Z6);
hold on;

[X7,Y7,Z7] = cylinder(mallay);
Z7 = (16.5 - 0) * Z7;
surf(X7,Y7,Z7);
hold on;

hold off;
```