



Computación

Ejemplos TP1 – Curso 2024

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Calcule la suma de los primeros 10 términos, con $q=1/7$, de la serie geométrica:

```
>> x= linspace(0,9,10)
```

```
x =
```

```
0    1    2    3    4    5    6    7    8    9
```

```
>> y=(1/7).^x
```

```
y =
```

```
1.0000    0.1429    0.0204    0.0029    0.0004    0.0001  
0.0000    0.0000    0.0000    0.0000
```

```
>> sum(y)
```

```
ans =
```

```
1.1667
```



➤ >> format long e

➤ >> y

➤ y =

➤ Columns 1 through 3

➤ 1.0000000000000000e+000 1.428571428571429e-001
2.040816326530612e-002

➤ Columns 4 through 6

➤ 2.915451895043731e-003 4.164931278633902e-004
5.949901826619859e-005

➤ Columns 7 through 9

➤ 8.499859752314084e-006 1.214265678902012e-006
1.734665255574303e-007

➤ Column 10

➤ 2.478093222249004e-008



➤ `sum(y)`

➤ `ans =`

➤ `1.166666662536511e+000`



Calcule las raíces de: $x^3 + x^2 + 1$

➤ `>> p=[1 1 0 1]`

➤ `p =`

➤ `1 1 0 1`

➤ `>> r=roots(p)`

➤ `r =`

➤ `-1.4656`

➤ `0.2328 + 0.7926i`

➤ `0.2328 - 0.7926i`



P1Ej3a)

`x= -3*pi/2:0.1:3*pi/2;`

`f= @(x) 1-(x.^2)/2+(x.^4)/24(x.^6)/720+(x.^8)/40320;`

`plot(x,f, 'red');hold on;`

`plot(x, cos(x));`



P1)Ej3.c)

```
f = @(x) (exp(-(x).^2)/2))/((2*pi).^0.5);  
q = quad(f,0,1);  
disp(q);
```