



1. Código fuente

```
%% Ejercicio 1
str = "Ejercicio 1"
x = [-5, 3, 8, -10]
figure();
plot(x);
xlabel('Tiempo');
ylabel('Amplitud');
annotation('textarrow','String','Sube');
%annotation('textarrow','String','Baja');
```

```
%% Ejercicio 2
str = "Ejercicio 2"
A = [1, 3, -3; 4, 5, 0; -1, 2, 4]
B = [-1, 3, 0]
```

```
% Transpuesta
str = "Transpuesta de A"
transpose(A)
```

```
% Inversa
str = "Inversa de A"
inv(A)
```

```
% Determinante
str = "Determinante de A"
det(A)
```

```
% Traza
str = "Traza de A"
trace(A)
```

```
% Vector Propio
str = "Vector propio de A"
eig(A)
```

```
% v.p. (Valores propios)
str = "Valores propios de A"
[V,D] = eig(A)
```

```
% Av=B
str = "Solucion de Av=B"
```

```
v = B * inv(A)
```

```
%% Ejercicio 3  
str = "Ejercicio 3"  
r = rand(1000,1);  
rn = randn(1000,1);  
figure();  
subplot(2,1,1);  
plot(r);  
subplot(2,1,2);  
plot(rn);
```

2. Salida del script

```
>> practica01
```

```
str =
```

```
"Ejercicio 1"
```

```
x =
```

```
-5      3      8     -10
```

```
str =
```

```
"Ejercicio 2"
```

```
A =
```

```
  1      3     -3  
  4      5      0  
 -1      2      4
```

```
B =
```

```
-1      3      0
```

```
str =
```

```
"Transpuesta de A"
```

```
ans =
```

```
  1      4     -1  
  3      5      2  
 -3      0      4
```

```
str =
```

```
"Inversa de A"
```

```
ans =
```

```
-0.2985      0.2687     -0.2239  
  0.2388     -0.0149      0.1791  
-0.1940      0.0746      0.1045
```

str =

"Determinante de A"

ans =

-67

str =

"Traza de A"

ans =

10

str =

"Vector propio de A"

ans =

-1.8588 + 0.0000 i
5.9294 + 0.9411 i
5.9294 - 0.9411 i

str =

"Valores propios de A"

V =

0.8229 + 0.0000 i	-0.1732 - 0.1754 i	-0.1732 + 0.1754 i
-0.4799 + 0.0000 i	-0.7455 + 0.0000 i	-0.7455 + 0.0000 i
0.3043 + 0.0000 i	-0.5159 + 0.3425 i	-0.5159 - 0.3425 i

D =

-1.8588 + 0.0000 i	0.0000 + 0.0000 i	0.0000 + 0.0000 i
0.0000 + 0.0000 i	5.9294 + 0.9411 i	0.0000 + 0.0000 i
0.0000 + 0.0000 i	0.0000 + 0.0000 i	5.9294 - 0.9411 i

```
str =
```

```
"Solucion de Av=B"
```

```
v =
```

```
1.0149    -0.3134    0.7612
```

```
str =
```

```
"Ejercicio 3"
```

```
>>
```

3. Gráficas

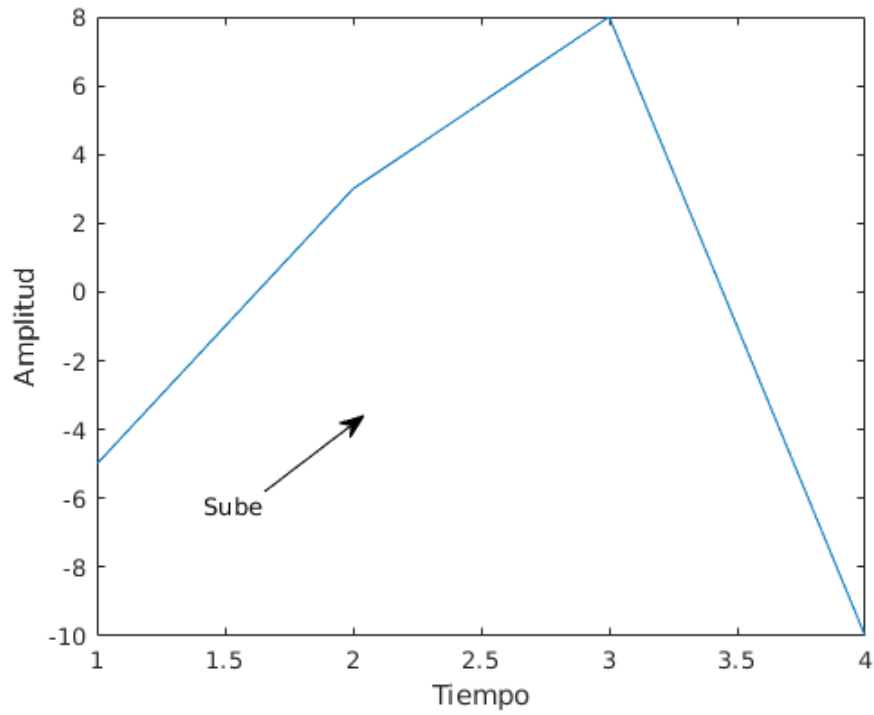


Figura 1: Figura del ejercicio 01

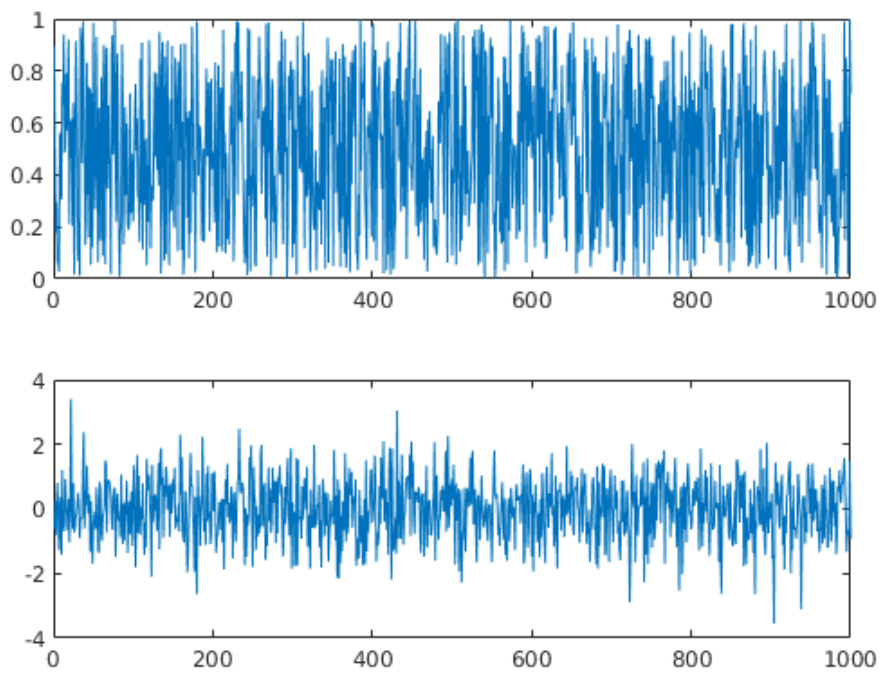


Figura 2: Figura del ejercicio 02