Vector1

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1 Crear un plano cartesiano

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1.0.2 Graficación Computacional

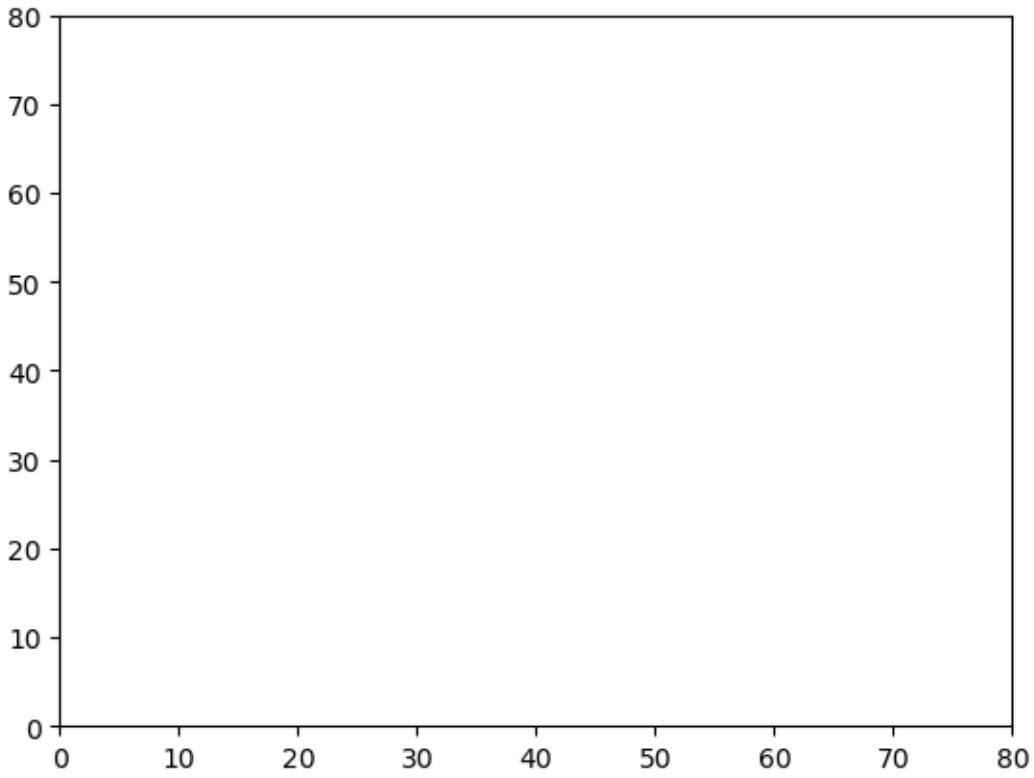
1.0.3 Profesora: Hazem Álvarez Rodríguez

1.0.4 Clase del 09 de septiembre de 2024

[3]:
```
import numpy as np
import matplotlib.pyplot as plt
```

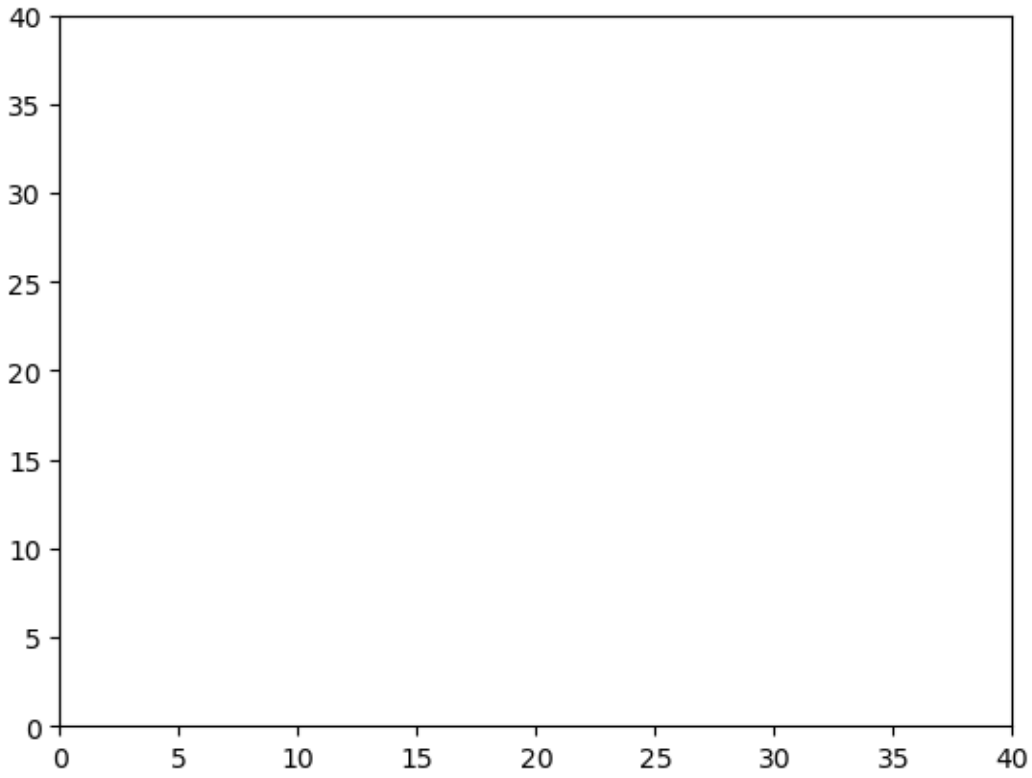
[10]:
```
x1=0
x2=80

y1=0
y2=80

plt.axis([x1,x2,y1,y2]) # Crear un eje
```

[10]:
```
(0.0, 80.0, 0.0, 80.0)
```



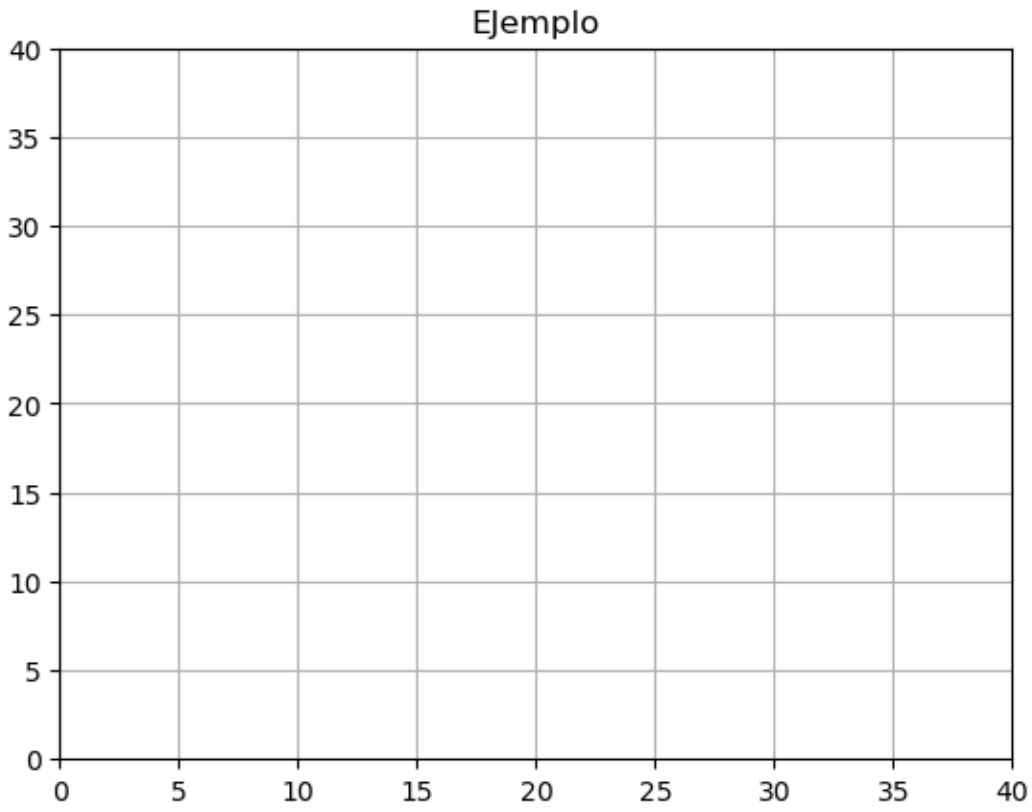
[9]:
```
x1=0
x2=40

y1=0
y2=40

plt.axis([x1,x2,y1,y2]) # Crear un eje
```

[9]: (0.0, 40.0, 0.0, 40.0)

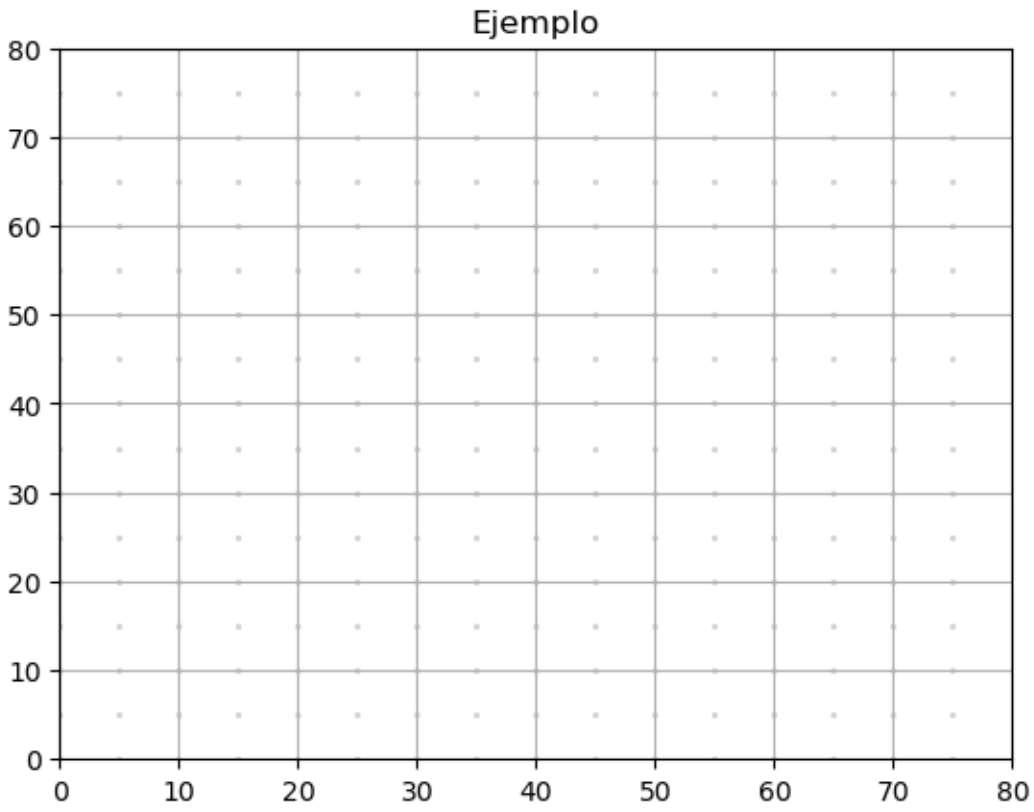


[12]:
```
x1=0
x2=40

y1=0
y2=40

# Crear un eje
plt.axis([x1,x2,y1,y2])

# Habilitar el grid
plt.grid(True)
plt.axis('on')
plt.title('Ejemplo')
```

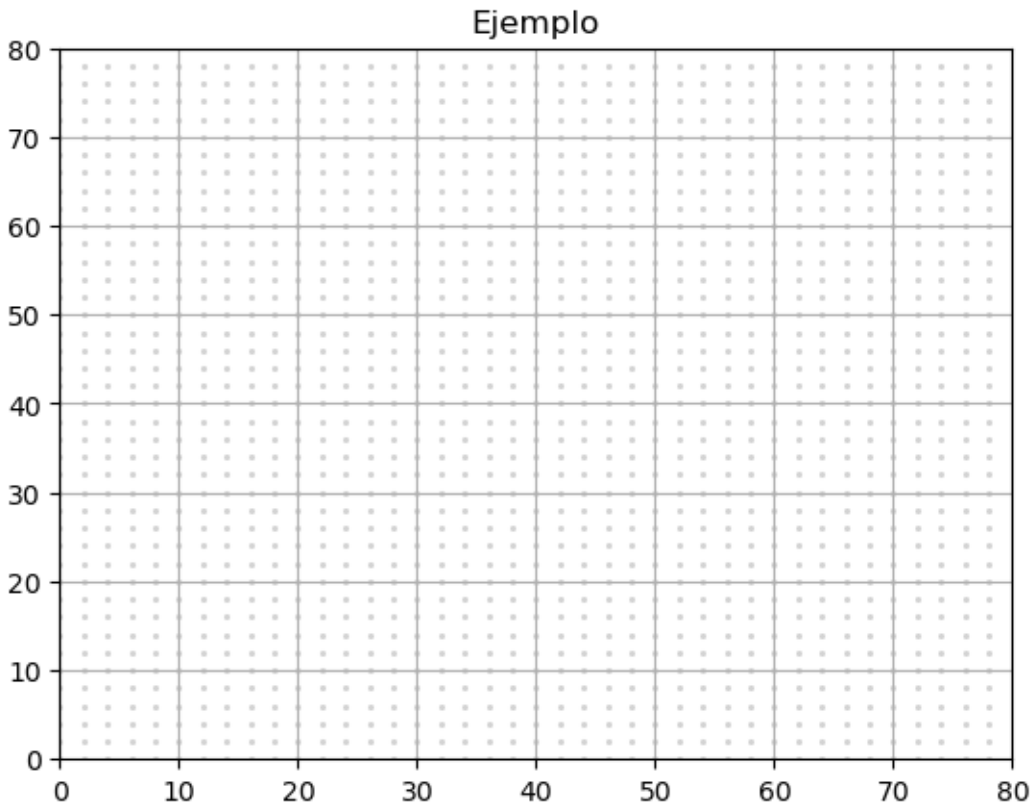
[12]: Text(0.5, 1.0, 'EJemplo')



[20]:
```
x1=0
x2=80

y1=0
y2=80

# Crear un eje
plt.axis([x1,x2,y1,y2])

# Habilitar el grid
plt.grid(True)
plt.axis('on')
plt.title('Ejemplo')

dx=5
dy=5

for x in np.arange(x1,x2,dx):
    for y in np.arange(y1,y2,dy):
        plt.scatter(x,y,s=1.5, color='lightgray')
```



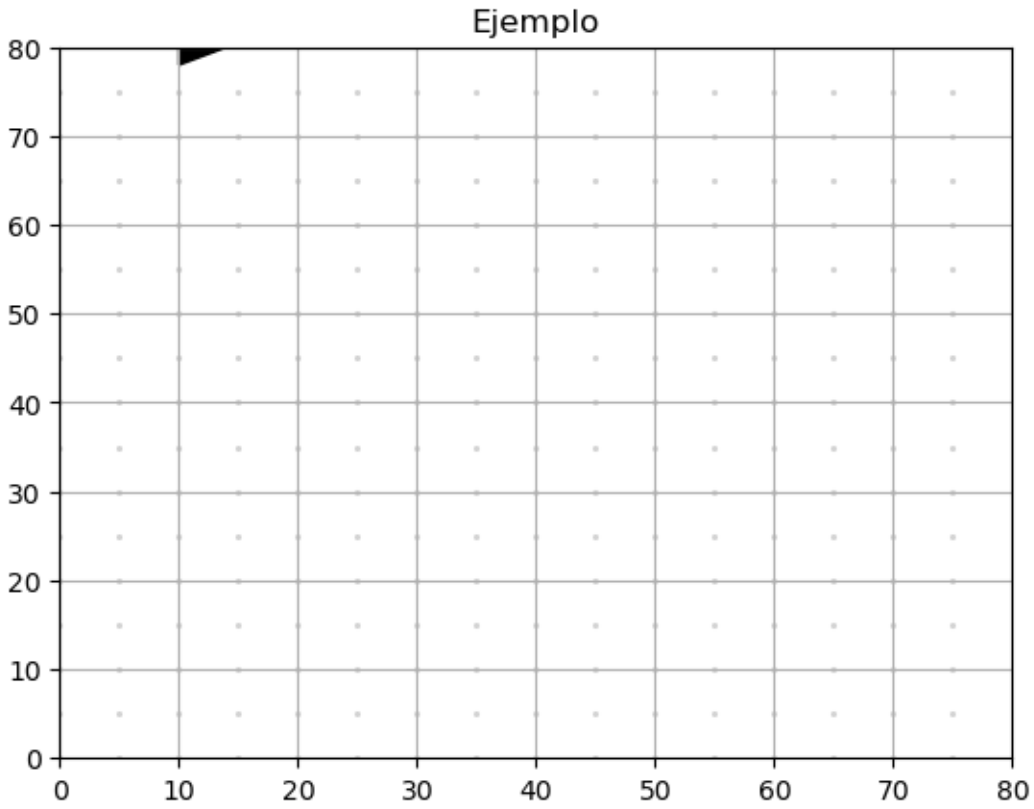
[23]:
```
  x1=0
x2=80

y1=0
y2=80

# Crear un eje
plt.axis([x1,x2,y1,y2])

# Habilitar el grid
plt.grid(True)
plt.axis('on')
plt.title('Ejemplo')

dx=1
dy=1

for x in np.arange(x1,x2,dx):
    for y in np.arange(y1,y2,dy):
        plt.scatter(x,y,s=1.5, color='lightgray')
```



[27]:
```
x1=0
x2=80

y1=0
y2=80

# Crear un eje
plt.axis([x1,x2,y1,y2])

# Habilitar el grid
plt.grid(True)
plt.axis('on')
plt.title('Ejemplo')

dx=5
dy=5

for x in np.arange(x1,x2,dx):
    for y in np.arange(y1,y2,dy):
        plt.scatter(x,y,s=1.5, color='lightgray')
```

```
        # x, y, incremento, abcisa, longitud, ancho, color
plt.arrow(0,80,10,0,head_length=4, head_width=4, color='k')
```

[27]: <matplotlib.patches.FancyArrow at 0x7324792b12b0>



1.1 Actividad

Graficar el vector ()

[44]:
```
x1=0
x2=20

y1=0
y2=20

# Crear un eje
plt.axis([x1,x2,y1,y2])

# Habilitar el grid
plt.grid(True)
plt.axis('on')
```

```
plt.title('Ejemplo')

dx=5
dy=5

for x in np.arange(x1,x2,dx):
    for y in np.arange(y1,y2,dy):
        plt.scatter(x,y,s=1.5, color='lightgray')

        # x, y, incremento, abcisa, longitud, ancho, color
plt.arrow(6,7,-3,-5,head_length=1, head_width=1, color='k')
plt.arrow(11,13,5,0,head_length=1, head_width=1, color='k')
plt.arrow(0,1,5,0,head_length=1, head_width=1, color='k')
```

[44]: <matplotlib.patches.FancyArrow at 0x73246d5c3980>