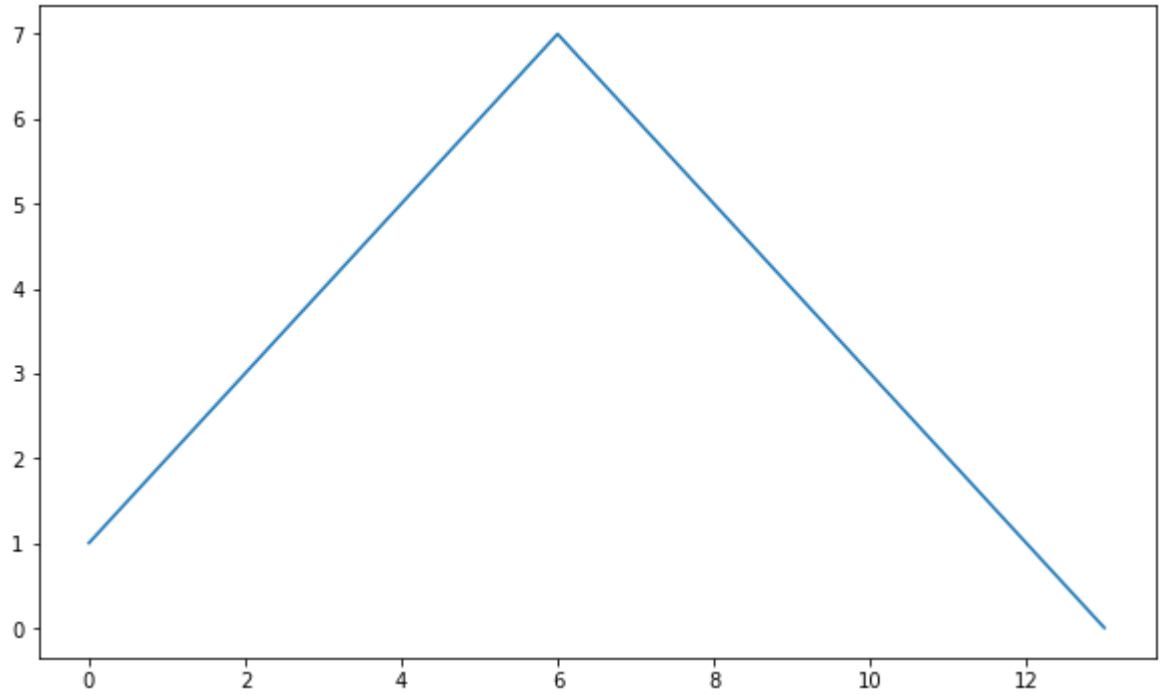
matplotlib 2

- import matplotlib.pyplot as plt
- %matplotlib inline
- import numpy as np

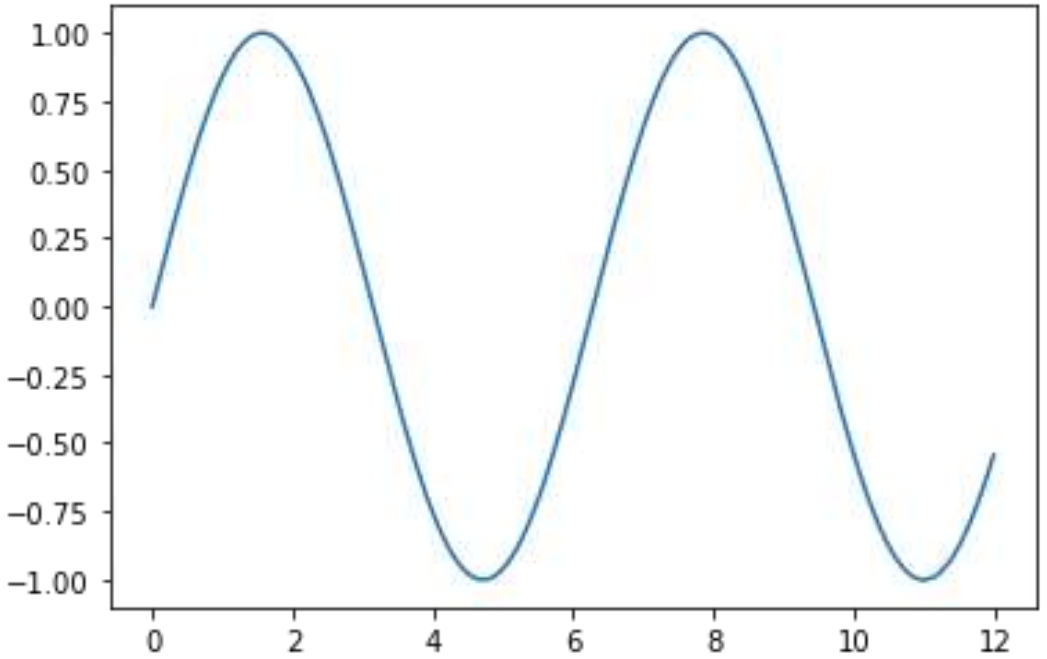
- plt.figure(figsize=(10,6))
- plt.plot([1,2,3,4,5,6,7,6,5,4,3,2,1,0])
- plt.show()

 # figsize: 차트그림(figure)의 크기 (inch)

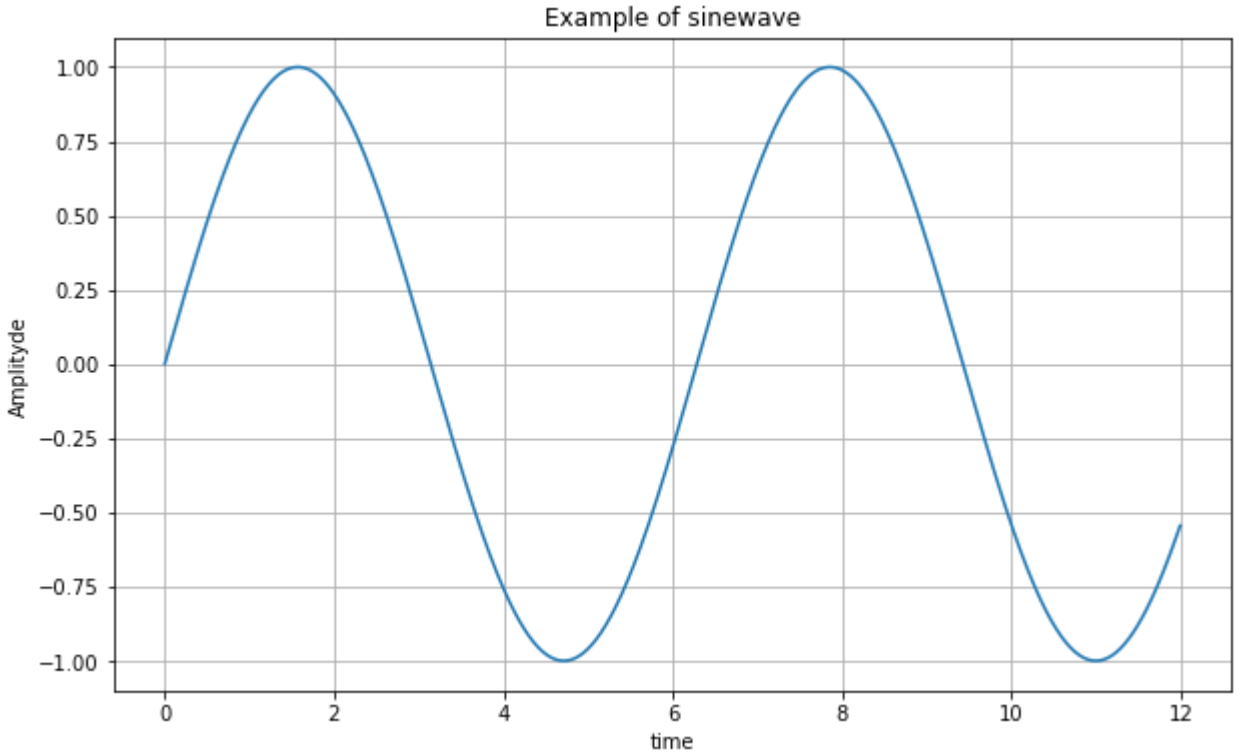


- t = np.arange(0,12,0.01)
- y = np.sin(t)

- plt.plot(t,y)
- plt.show

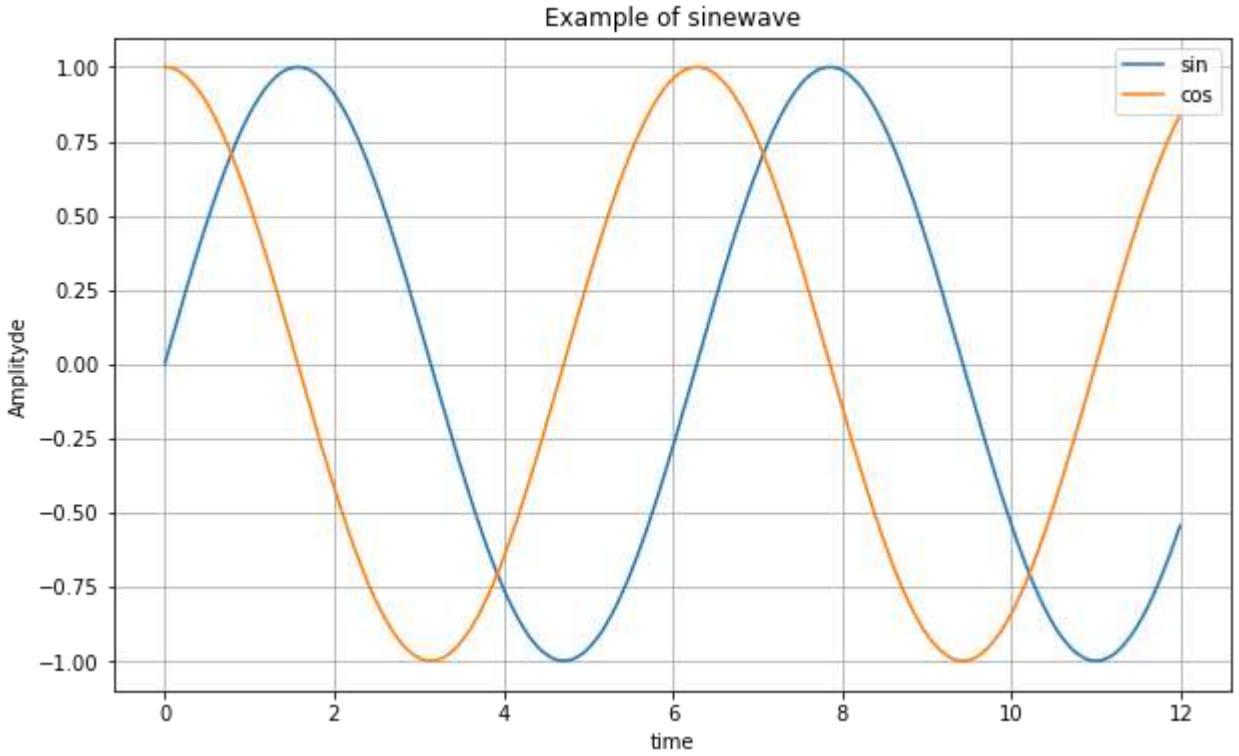


- plt.figure(figsize=(10,6))
- plt.plot(t,y)
- plt.grid()
- plt.xlabel('time')
- plt.ylabel('Amplityde')
- plt.title('Example of sinewave')
- plt.show()



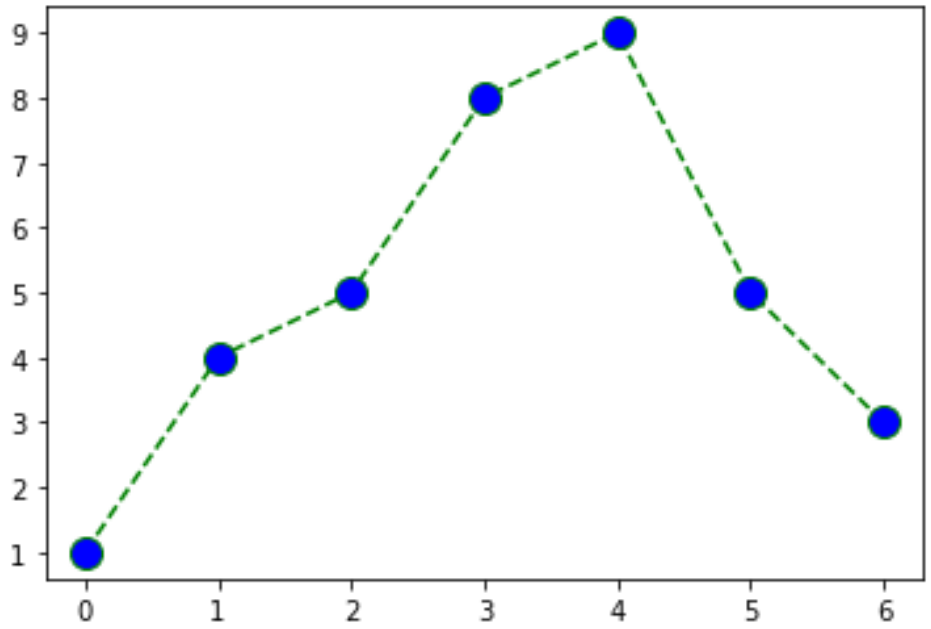
#legend() 범례

- plt.figure(figsize=(10,6))
- plt.plot(t,y,label='sin')
- plt.plot(t,np.cos(t),label='cos')
- plt.grid()
- plt.legend()
- plt.xlabel('time')
- plt.ylabel('Amplityde')
- plt.title('Example of sinewave')
- plt.show()

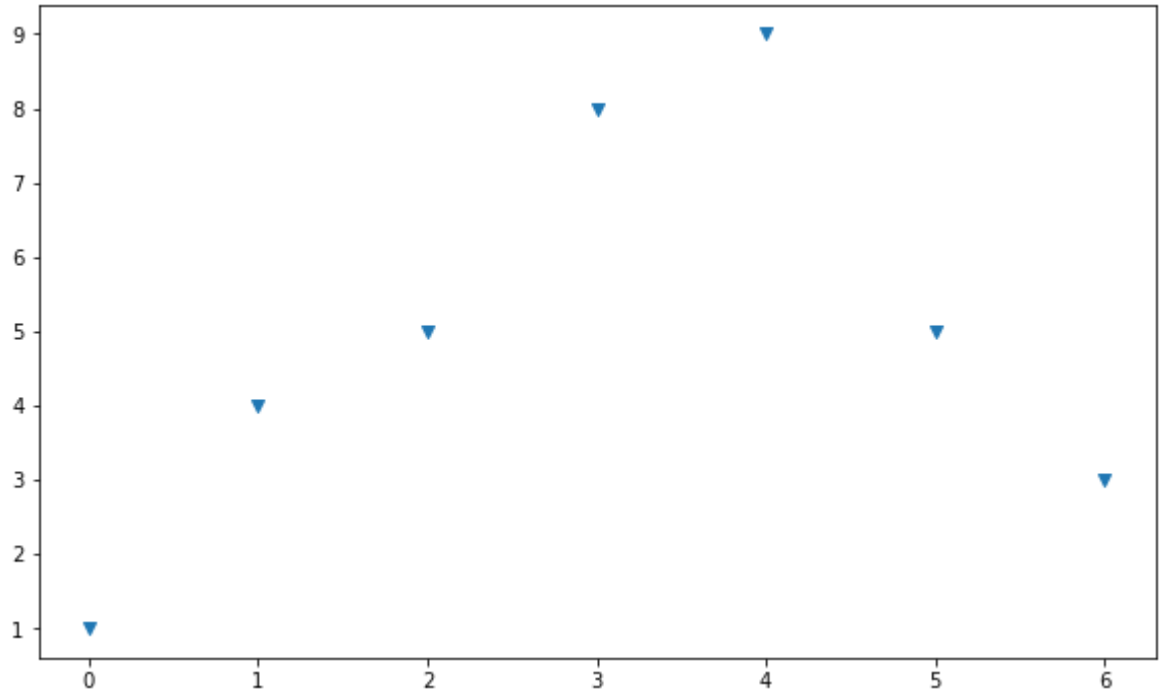


- t = [0,1,2,3,4,5,6]
- y = [1,4,5,8,9,5,3]

- plt.plot(t, y, color='g', linestyle='--', marker='o', markerfacecolor='b', markersize=12)
- plt.figure(figsize=(10,6))
- plt.show()



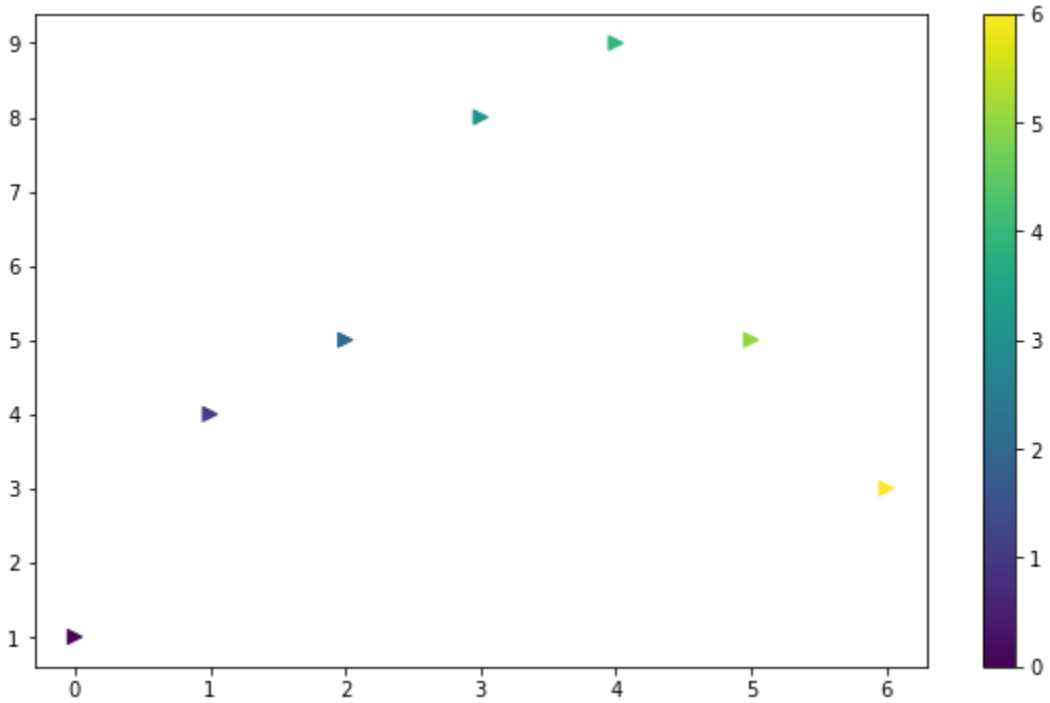
- plt.figure(figsize=(10,6))
- plt.scatter(t, y, marker='v')
- plt.show()



 # colormap: x축값 t에 따라 색상을 바꿈

 # s: 마커 크기

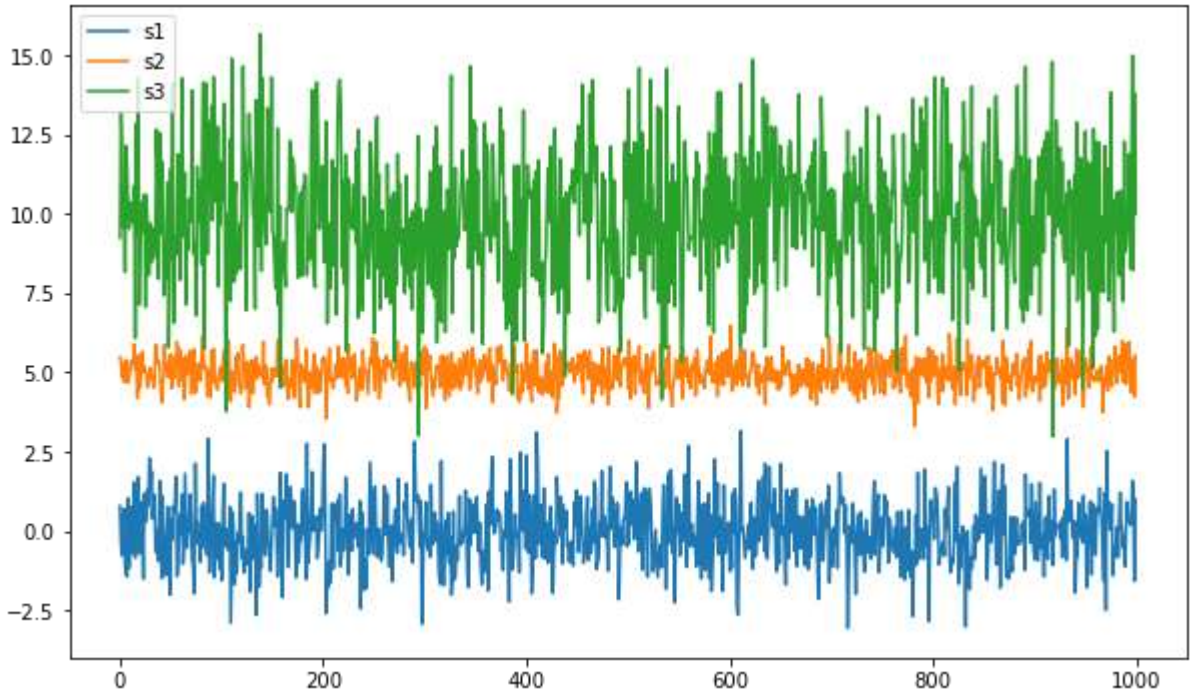
- colormap=t
- plt.figure(figsize=(10,6))
- plt.scatter(t, y, s=50, c=colormap, marker='>')
- plt.colorbar()
- plt.show()



 # normal(평균, 표준편차)

- s1 = np.random.normal(0, 1, size=1000)
- s2 = np.random.normal(5, 0.5, size=1000)
- s3 = np.random.normal(10, 2, size=1000)

- plt.figure(figsize=(10,6))
- plt.plot(s1, label='s1')
- plt.plot(s2, label='s2')
- plt.plot(s3, label='s3')
- plt.legend()
- plt.show



- plt.figure(figsize=(10,6))
- plt.boxplot((s1,s2,s3))
- plt.grid()
- plt.show()