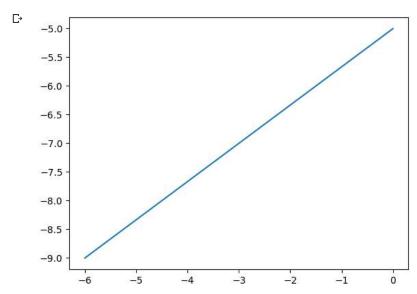
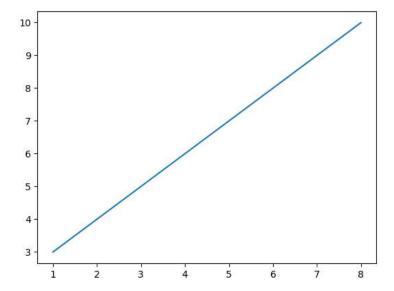
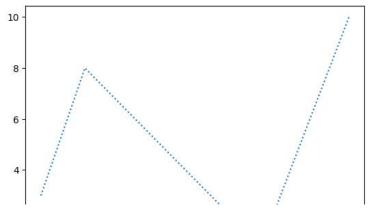
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([0,-6])
ypoints=np.array([-5,-9])
plt.plot(xpoints,ypoints)
plt.show()
```



import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,8])
ypoints=np.array([3,10])
plt.plot(xpoints,ypoints)
plt.show()

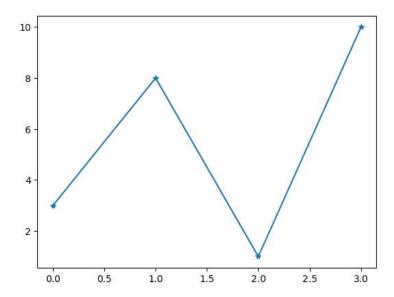


import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,8])
ypoints=np.array([3,8,1,10])
plt.plot(xpoints,ypoints,':')
plt.show()



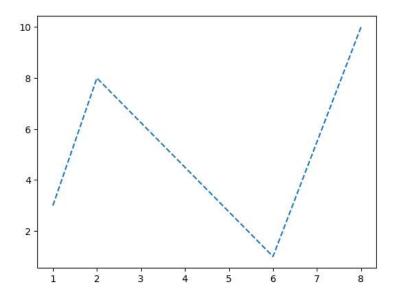
import matplotlib.pyplot as plt
import numpy as np

ypoints=np.array([3,8,1,10])
plt.plot(ypoints,marker='*')
plt.show()

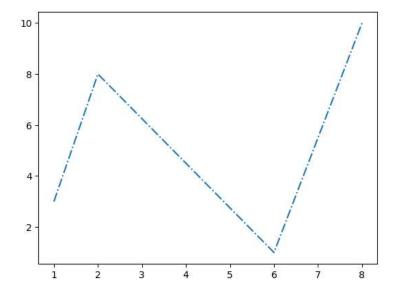


import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,8])
ypoints=np.array([3,8,1,10])
plt.plot(xpoints,ypoints,'o:m')
plt.show()

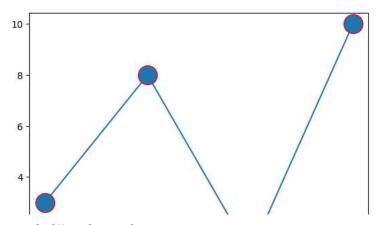
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,8])
ypoints=np.array([3,8,1,10])
plt.plot(xpoints,ypoints,'--')
plt.show()
```



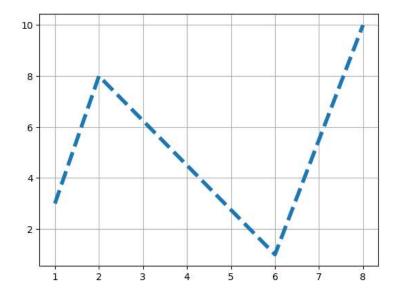
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,8])
ypoints=np.array([3,8,1,10])
plt.plot(xpoints,ypoints,'-.')
plt.show()
```



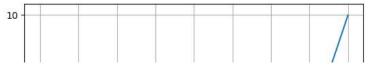
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,8])
ypoints=np.array([3,8,1,10])
plt.plot(ypoints,marker='o',ms=20,mec='r')
plt.show()
```



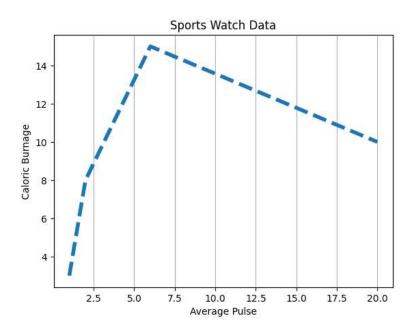
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,8])
ypoints=np.array([3,8,1,10])
plt.plot(xpoints,ypoints,linestyle='dashed',linewidth=4)
plt.grid(True)
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x1=np.array([1,2,6,8])
y1=np.array([3,8,1,10])
x2=np.array([0,1,2,3])
y2=np.array([6,2,7,1])
plt.plot(x1,y1,x2,y2)
plt.grid(True)
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,6,20])
y=np.array([3,8,15,10])
plt.plot(x,y,linestyle='dashed',linewidth=4)
plt.title("Sports Watch Data")
plt.xlabel("Average Pulse")
plt.ylabel("Caloric Burnage")
plt.grid(axis='x')
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
#polt 1
x=np.array([0,12,32,54])
y=np.array([18,10,13,12])
plt.subplot(1,2,2)
plt.plot(x,y,color='y')
#polt2
x=np.array([0,15,22,34])
y=np.array([19,10,15,12])
plt.subplot(1,2,1)
plt.plot(x,y,color='r')
plt.show()
```

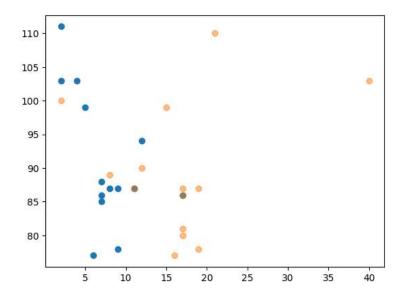
```
18 - 17 -
```

```
import matplotlib.pyplot as plt
import numpy as np
#polt 1
x=np.array([0,12,32,54])
y=np.array([18,10,13,12])
plt.subplot(1,2,2)
plt.plot(x,y,color='y')
plt.title("Sales")
plt.grid()
#polt2
x=np.array([0,15,22,34])
y=np.array([19,10,15,12])
plt.subplot(1,2,1)
plt.plot(x,y,color='r')
plt.title("Income")
plt.suptitle("MY SHOP")
plt.grid()
plt.show()
```



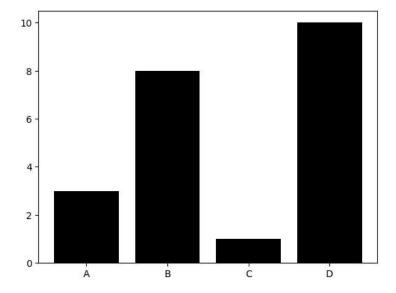
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([5,7,8,7,7,2,17,2,9,4,11,12,9,6])
y=np.array([99,86,87,85,88,111,86,103,87,103,87,94,78,77])
plt.scatter(x,y)
plt.show()
```

```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([5,7,8,7,7,2,17,2,9,4,11,12,9,6])
y=np.array([99,86,87,85,88,111,86,103,87,103,87,94,78,77])
plt.scatter(x,y)
x=np.array([15,17,8,17,17,21,17,2,19,40,11,12,19,16])
y=np.array([99,87,89,81,80,110,86,100,87,103,87,90,78,77])
plt.scatter(x,y,alpha=0.5)
plt.show()
```



#creating bars
import matplotlib.pyplot as plt
import numpy as np
x=np.array(["A","B","C","D"])
y=np.array([3,8,1,10])
plt.bar(x,y,color='k')

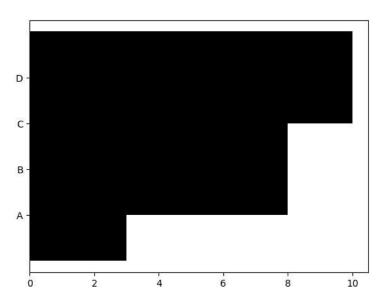
plt.show()



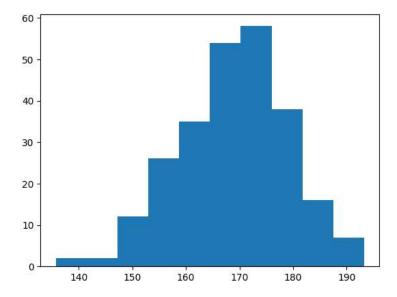
import matplotlib.pyplot as plt
import numpy as np
x=np.array(["A","B","C","D"])
y=np.array([3,8,1,10])

plt.barh(x,y,color='k',height=2)

plt.show()



import matplotlib.pyplot as plt
import numpy as np
x=np.random.normal(170,10,250)
plt.hist(x)
plt.show()



N Y