Assignment 5

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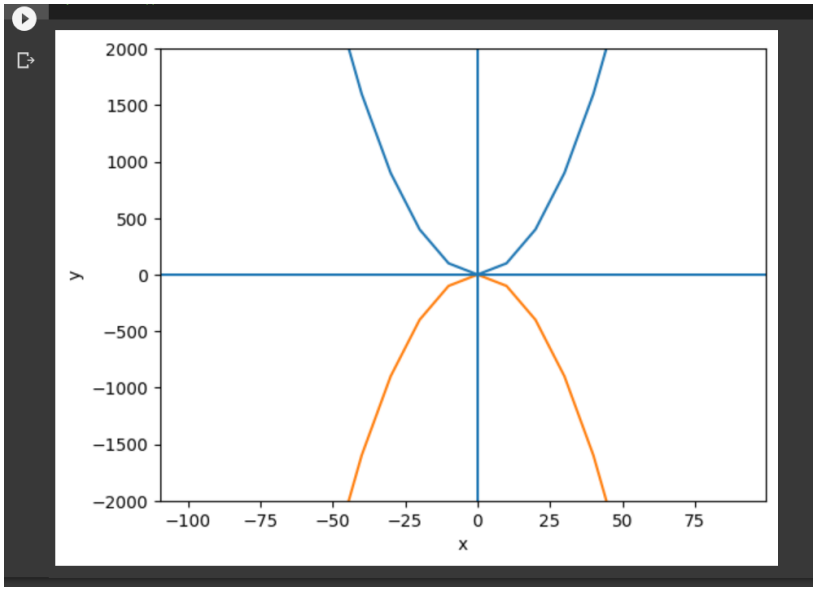
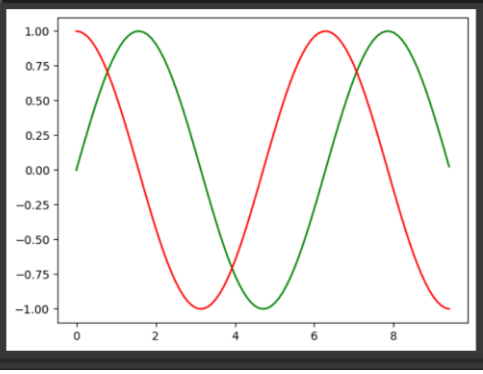
Division: F1

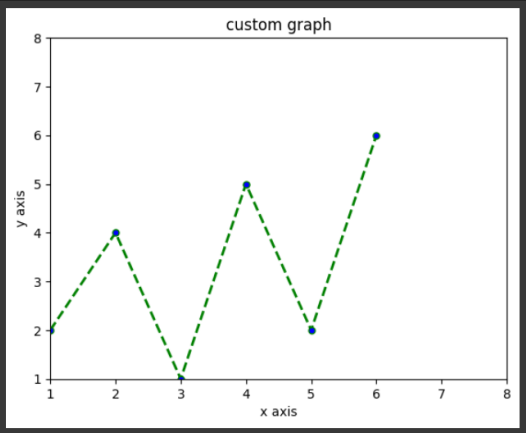
```
import matplotlib.pyplot as plt
y1=[]
y2=[]
x=range(-100,100,10)
for i in x:y1.append(i**2)
for i in x:y2.append(-i**2)
plt.plot(x,y1)
plt.plot(x,y2)

plt.xlabel("x")
plt.ylabel("y")
plt.ylim(-2000,2000)
plt.axhline(0)
plt.axvline(0)

plt.show()

#plt.plot(x,y)
#plt.show()
```



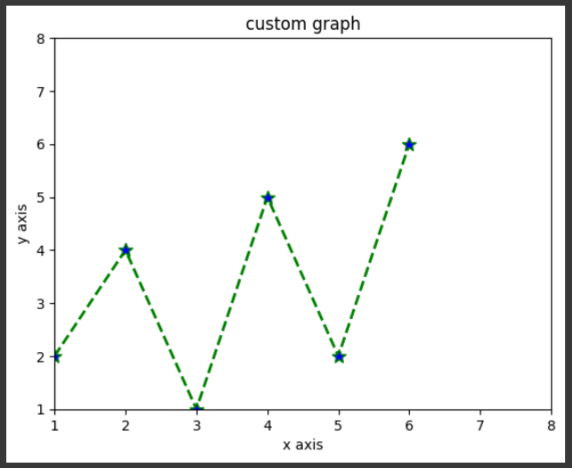
```
import numpy as np
x=np.arange(0,3*np.pi,0.1)
y=np.arange(0,3*np.pi,0.1)
y1=np.sin(x)
y2=np.cos(y)
plt.plot(x,y1,'green')
plt.plot(x,y2,'red')
plt.show()
```



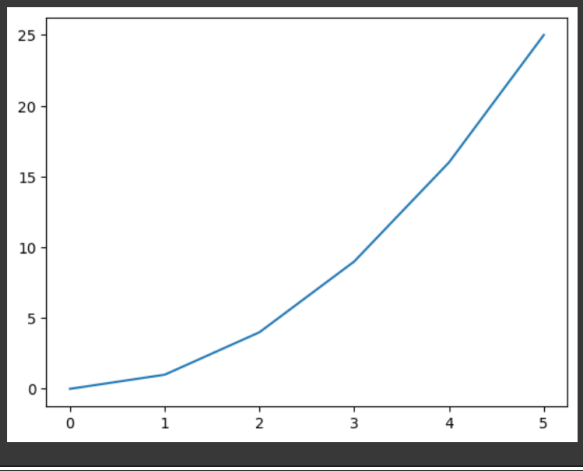

```
x=[1,2,3,4,5,6]
y=[2,4,1,5,2,6]
plt.plot(x,y,color='green',linestyle='dashed',linewidth=2,marker='o',markerfacecolor='blue',markersize=5)
plt.ylim(1,8)
plt.xlim(1,8)
plt.xlabel('x axis')
plt.ylabel('y axis')
plt.title('custom graph')
plt.show()
```



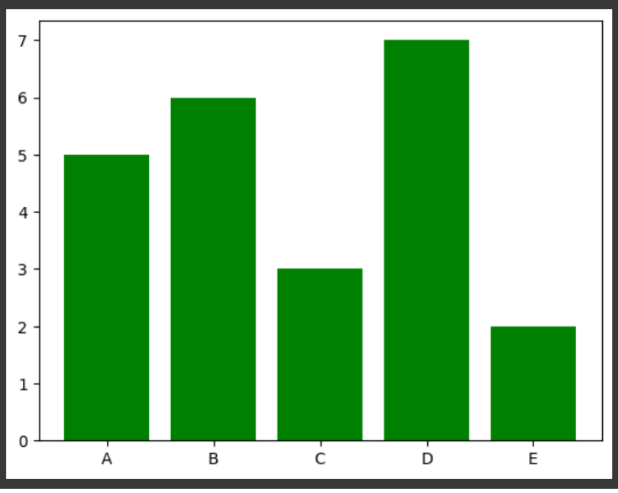

```
x=[1,2,3,4,5,6]
y=[2,4,1,5,2,6]
plt.plot(x,y,color='green',linestyle='dashed',linewidth=2,marker='*',markerfacecolor='blue',markersize=10)
plt.ylim(1,8)
plt.xlim(1,8)
plt.xlabel('x axis')
plt.ylabel('y axis')
plt.title('custom graph')
plt.show()
```



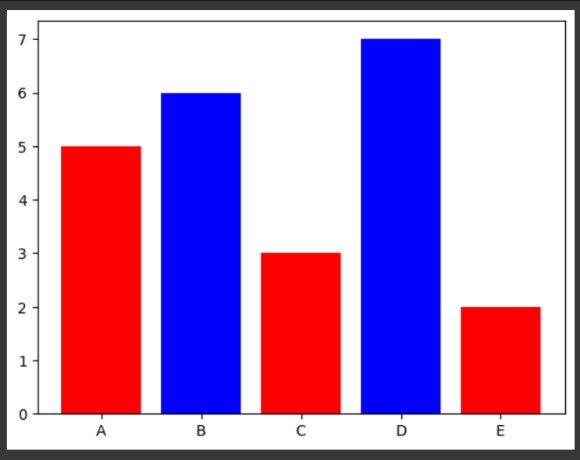
```
x=[0,1,2,3,4,5]
y=[0,1,4,9,16,25]
plt.plot(x,y)
plt.show()
```



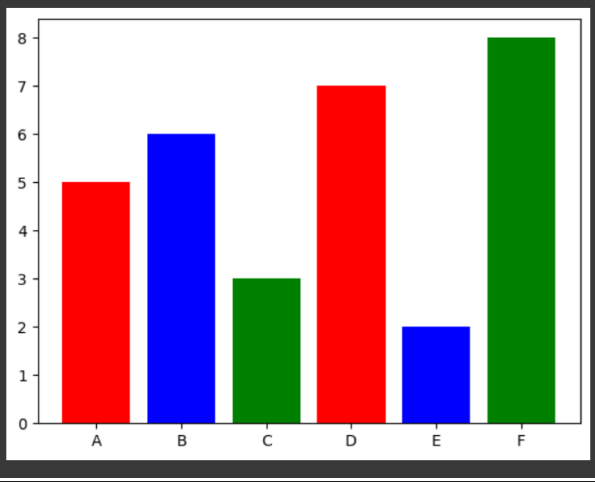

```
[ ] val=[5,6,3,7,2]
    names=["A","B","C","D","E"]
    plt.bar(names,val,color='g')
    plt.show()
```




```
val=[5,6,3,7,2]
names=["A","B","C","D","E"]
c=['r','b']
plt.bar(names,val,color=c)
plt.show()
```

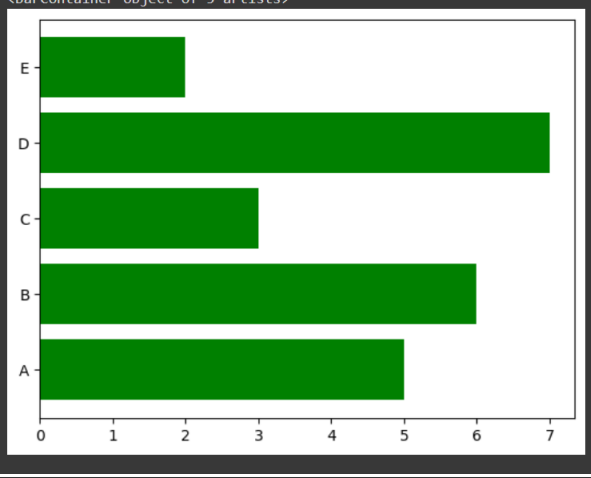


```
val=[5,6,3,7,2,8]
names=["A","B","C","D","E","F"]
c=['r','b','g']
plt.bar(names,val,color=c)
plt.show()
```

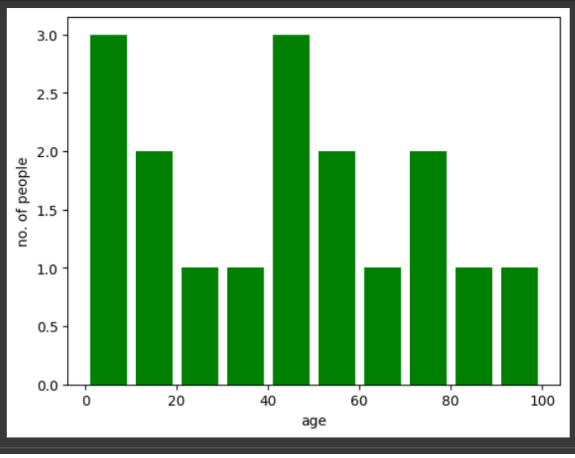



```
plt.barh(names,val,color='g')
```

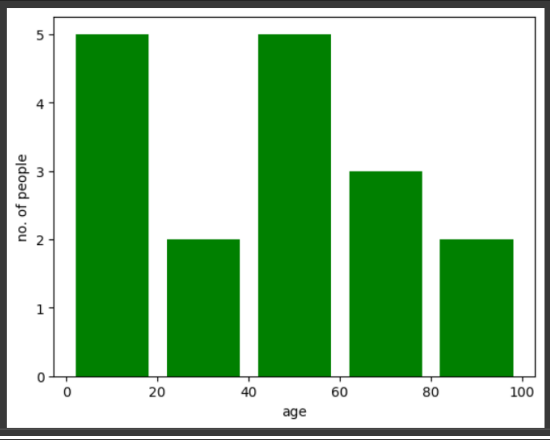
```
<BarContainer object of 5 artists>
```



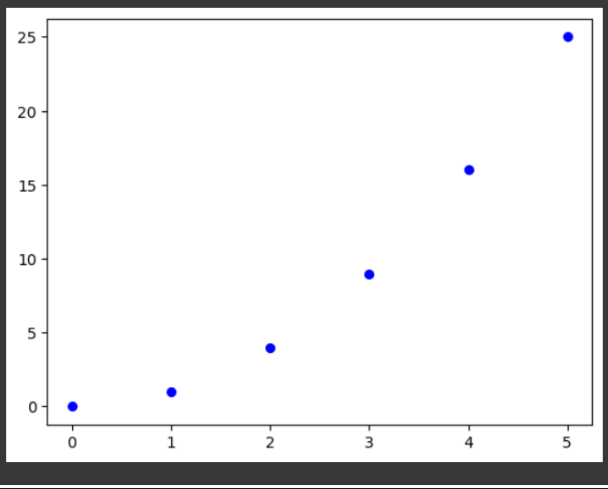

```
age=[2,5,70,40,30,45,50,43,60,7,13,57,18,90,77,21,89]
range=(0,100)
bins=10
plt.hist(age,bins,range,color='g',histtype='bar',rwidth=0.8)
plt.xlabel('age')
plt.ylabel('no. of people')
plt.title=('histogram')
plt.show()
```



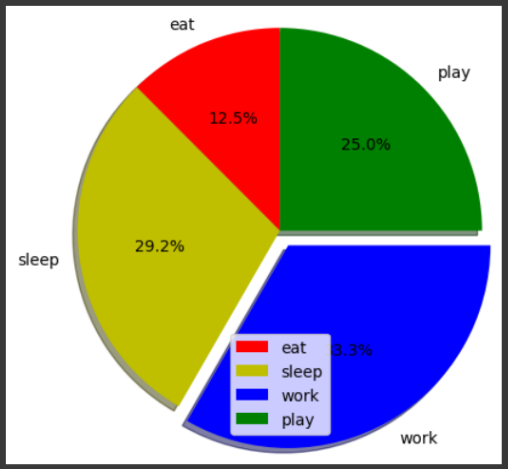
```
[ ]  age=[2,5,70,40,30,45,50,43,60,7,13,57,18,90,77,21,89]
     range=(0,100)
     bins=5
     plt.hist(age,bins,range,color='g',histtype='bar',rwidth=0.8)
     plt.xlabel('age')
     plt.ylabel('no. of people')
     plt.title=('histogram')
     plt.show()
```



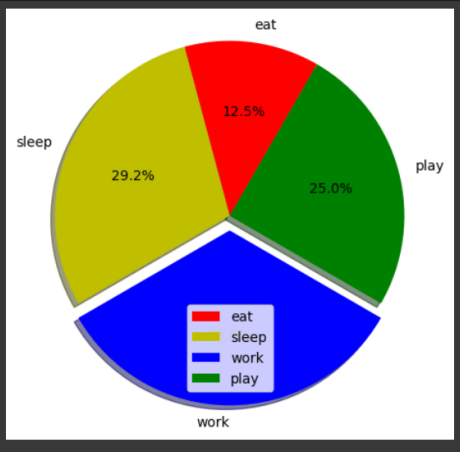

```
[ ]  x=[0,1,2,3,4,5]
     y=[0,1,4,9,16,25]
     plt.scatter(x,y,s=30,color='blue')
     plt.show()
```




```
     activity=['eat','sleep','work','play']
     slices=[3,7,8,6]
     colors=['r','y','b','g']
     plt.pie(slices,labels=activity,colors=colors,startangle=90,shadow=True,explode=(0,0,0.1,0),radius=1.2,autopct='%1.1f%%')
     plt.legend()
     plt.show()
```



```
activity=['eat','sleep','work','play']
slices=[3,7,8,6]
colors=['r','y','b','g']
plt.pie(slices,labels=activity,colors=colors,startangle=60,shadow=True,explode=(0,0,0.1,0),radius=1.2,autopct='%1.1f%%')
plt.legend()
plt.show()
```




```
[ ] activity=['eat','sleep','work','play']
    slices=[3,7,8,6]
    colors=['r','y','b','g']
    plt.pie(slices,labels=activity,colors=colors,startangle=60,shadow=True,explode=(0,0,0,0),radius=1.2,autopct='%1.1f%%')
    plt.legend()
    plt.show()
```