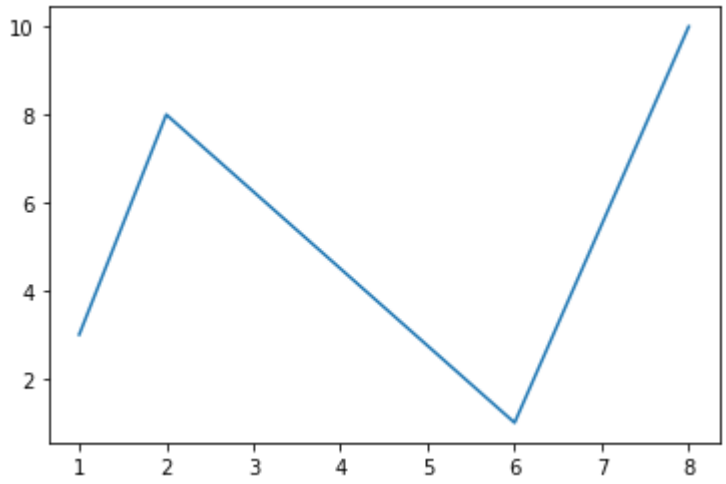
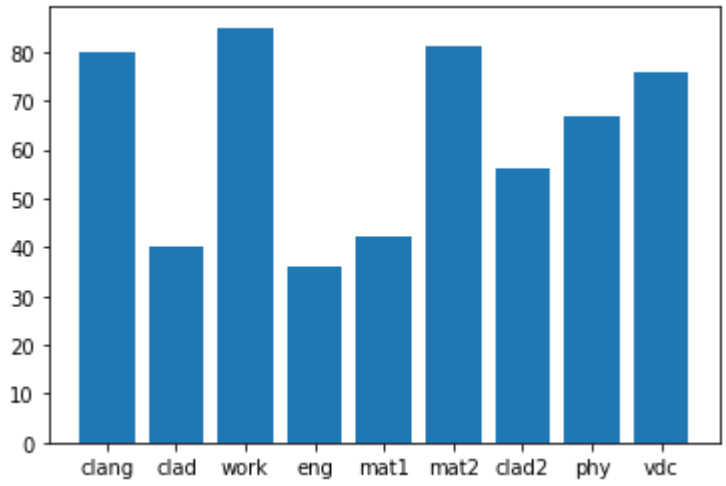
```
import matplotlib.pyplot as plt
import numpy as np
xpoints = np.array([1, 2, 6, 8])
ypoints = np.array([3, 8, 1, 10])

plt.plot(xpoints, ypoints)
plt.show()
```

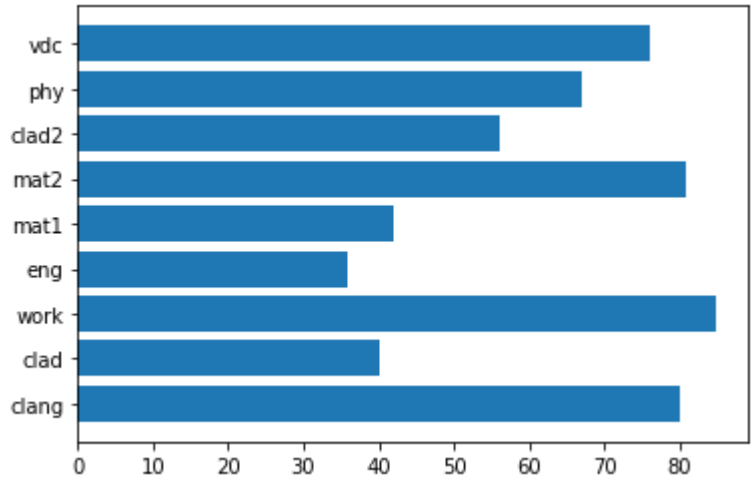



```
##to show the grades in python
import matplotlib.pyplot as plt
import numpy as np

x = np.array(["clang", "clad", "work", "eng","mat1","mat2","clad2","phy","vdc"])
y = np.array([80, 40, 85, 36, 42, 81, 56, 67, 76])

plt.bar(x,y)
plt.show()
```

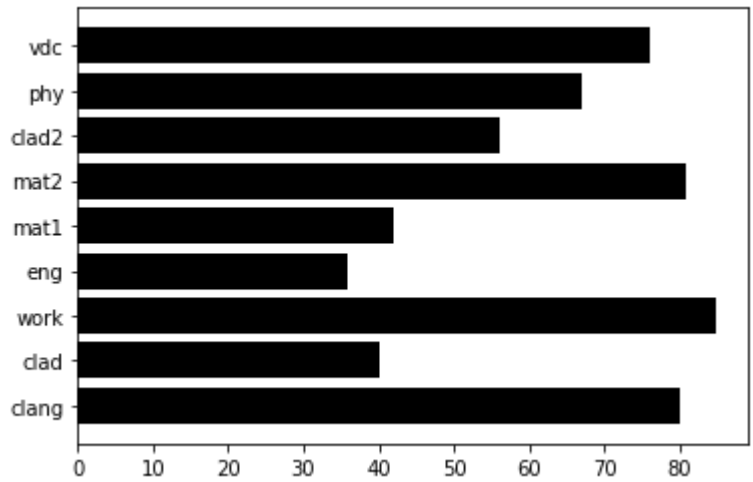



```
import matplotlib.pyplot as plt
import numpy as np
```

```
x = np.array(["clang", "clad", "work", "eng","mat1","mat2","clad2","phy","vdc"])
y = np.array([80, 40, 85, 36, 42, 81, 56, 67, 76])

plt.barh(x, y)
plt.show()
```

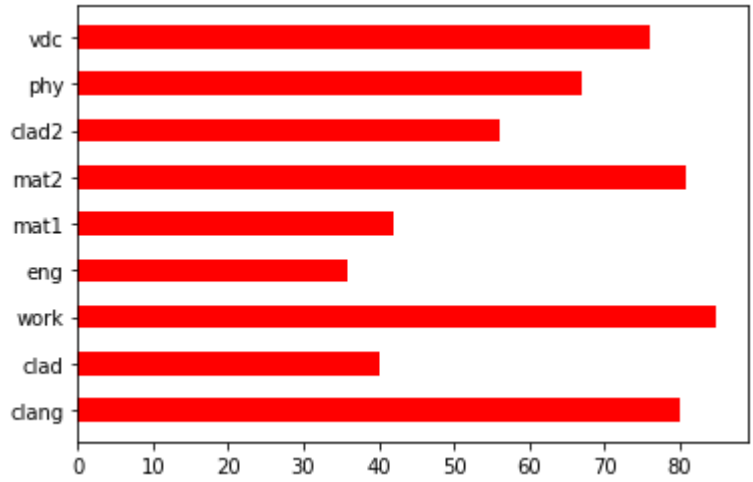



```
import matplotlib.pyplot as plt
import numpy as np

x = np.array(["clang", "clad", "work", "eng","mat1","mat2","clad2","phy","vdc"])
y = np.array([80, 40, 85, 36, 42, 81, 56, 67, 76])

plt.barh(x, y,color='black')
plt.show()
```

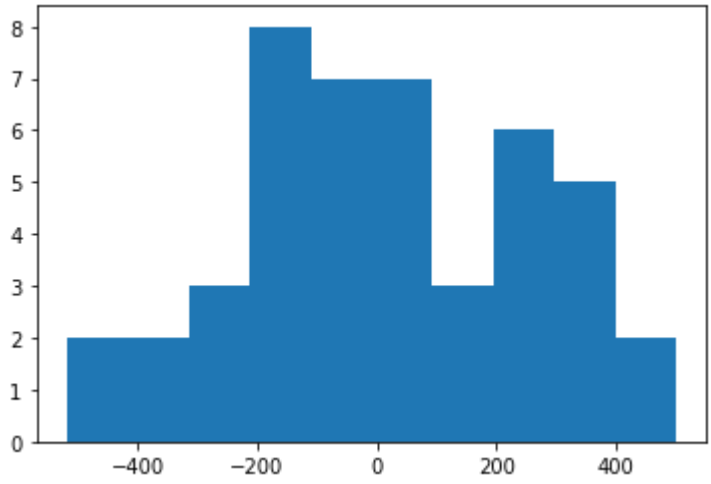



```
import matplotlib.pyplot as plt
import numpy as np

x = np.array(["clang", "clad", "work", "eng","mat1","mat2","clad2","phy","vdc"])
y = np.array([80, 40, 85, 36, 42, 81, 56, 67, 76])
```

```
plt.barh(x, y,height = 0.5,color="red")
plt.show()
```



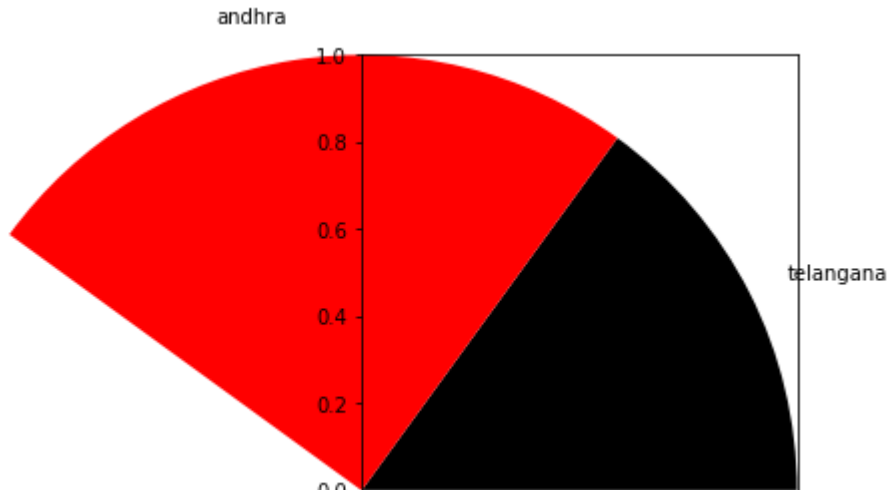

```
#create a histogram
import matplotlib.pyplot as plt
import numpy as np

x = np.random.normal(31,250,45)

plt.hist(x)
plt.show()
```




```
import matplotlib.pyplot as plt
import numpy as np

y = np.array([15,25,18,35,7])
mylabels=["telangana","andhra","jammu","uttar","madhya"]
mycolors=["black","red","hot pink","b","#4CAF50"]
plt.pie(y , labels= mylabels, colors = mycolors )
plt.show()
```

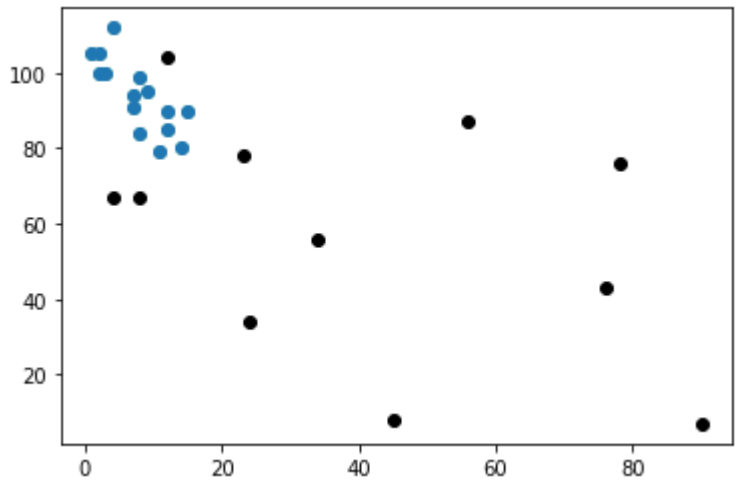
```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-15-42a95b4828a2> in <module>()
      5 mylabels=["telangana","andhra","jammu","uttar","madhya"]
      6 mycolors=["black","red","hot pink","b","#4CAF50"]
----> 7 plt.pie(y , labels= mylabels, colors = mycolors )
      8 plt.show()

8 frames
/usr/local/lib/python3.7/dist-packages/matplotlib/colors.py in
_to_rgba_no_colorcycle(c, alpha)
    259                     f"Value must be within 0-1 range")
    260             return c, c, c, alpha if alpha is not None else 1.
--> 261         raise ValueError(f"Invalid RGBA argument: {orig_c!r}")
    262     # tuple color.
    263     c = np.array(c)

ValueError: Invalid RGBA argument: 'hot pink'
```

SEARCH STACK OVERFLOW

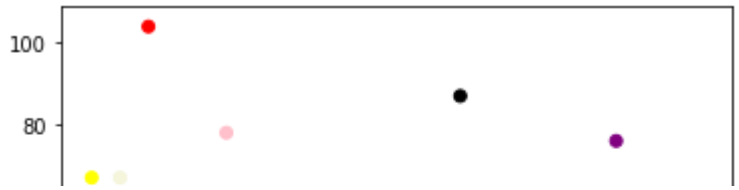



```
import matplotlib.pyplot as plt
import numpy as np

x = np.array([12,24,34,4,23,56,76,78,8,90,45])
y = np.array([104,34,56,67,78,87,43,76,67,7,8])

plt.scatter(x, y)
plt.show()
```

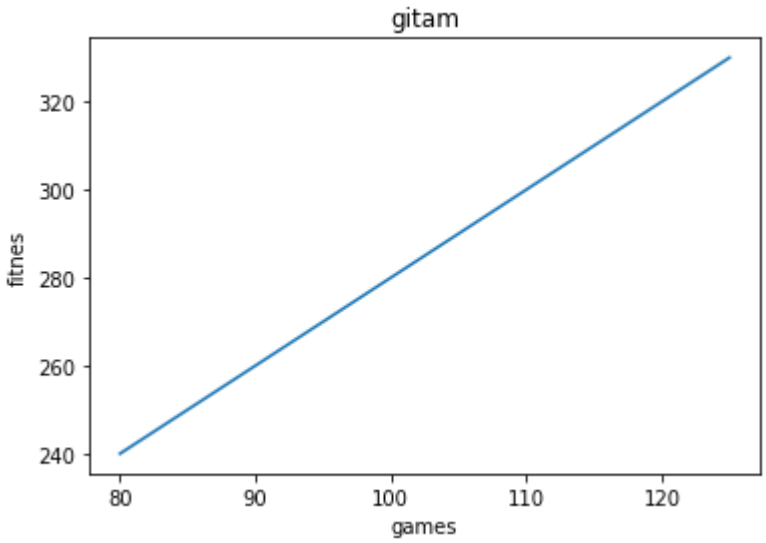
```
import matplotlib.pyplot as plt
import numpy as np

x = np.array([12,24,34,4,23,56,76,78,8,90,45])
y = np.array([104,34,56,67,78,87,43,76,67,7,8])
plt.scatter(x,y,color='black')

x = np.array([2,2,8,1,15,8,12,9,7,3,11,4,7,14,12])
y = np.array([100,105,84,105,90,99,90,95,94,100,79,112,91,80,85])
plt.scatter(x, y, color = '#88c999')
plt.scatter(x, y)
plt.show()
```




```
import matplotlib.pyplot as plt
import numpy as np

x = np.array([12,24,34,4,23,56,76,78,8,90,45])
y = np.array([104,34,56,67,78,87,43,76,67,7,8])
colors = np.array(["red","green","blue","yellow","pink","black","orange","purple","beige","br
plt.scatter(x,y,c=colors)

plt.show()
```

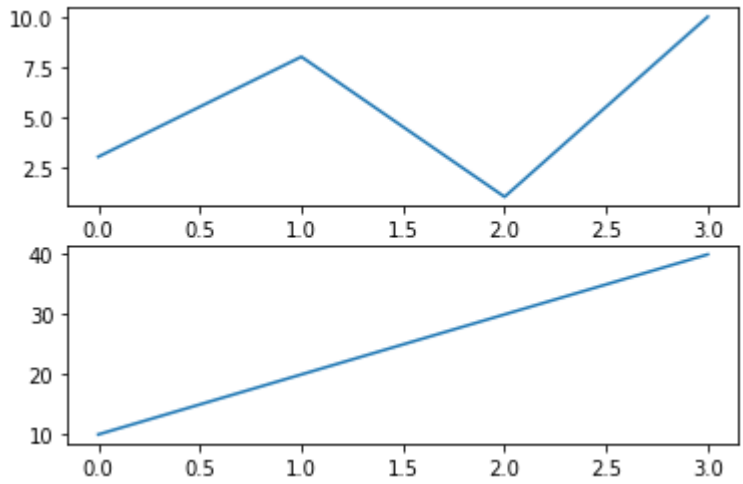



```
import numpy as np
import matplotlib.pyplot as plt

x = np.array([80, 85, 90, 95, 100, 105, 110, 115, 120, 125])
y = np.array([240, 250, 260, 270, 280, 290, 300, 310, 320, 330])

plt.plot(x, y)

plt.title("gitam")
plt.xlabel("games")
plt.ylabel("fitnes")

plt.show()
```

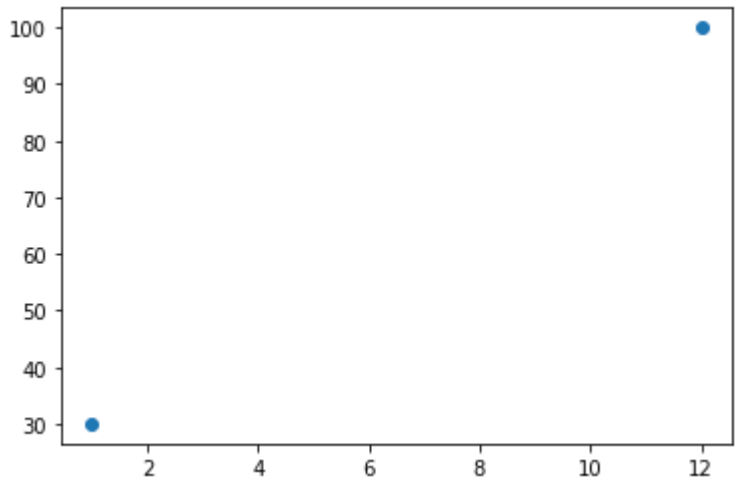



```
import matplotlib.pyplot as plt
import numpy as np

#plot 1:
x = np.array([0, 1, 2, 3])
y = np.array([3, 8, 1, 10])

plt.subplot(2, 1, 1)
plt.plot(x,y)

#plot 2:
x = np.array([0, 1, 2, 3])
y = np.array([10, 20, 30, 40])

plt.subplot(2, 1, 2)
```

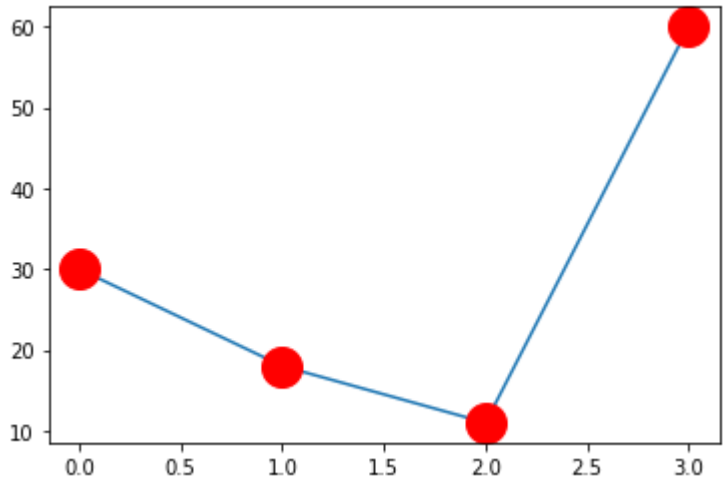
```
plt.plot(x,y)

plt.show()
```



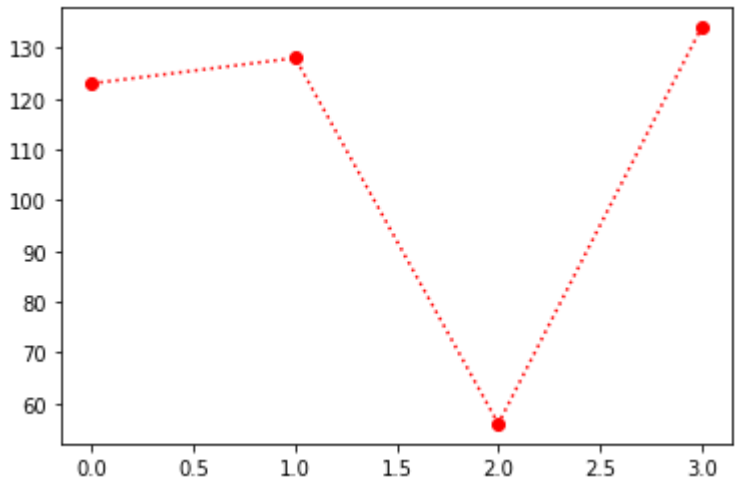

```
import matplotlib.pyplot as plt
import numpy as np

xpoints = np.array([1, 12])
ypoints = np.array([30, 100])

plt.plot(xpoints, ypoints, 'o')
plt.show()
```



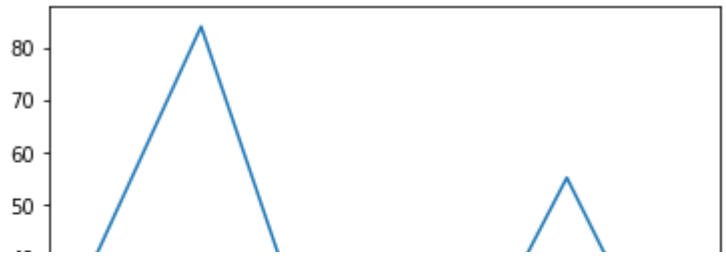

```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([30, 18, 11, 60])

plt.plot(ypoints, marker = 'o', ms = 20, mec = 'r', mfc = 'r')
plt.show()
```



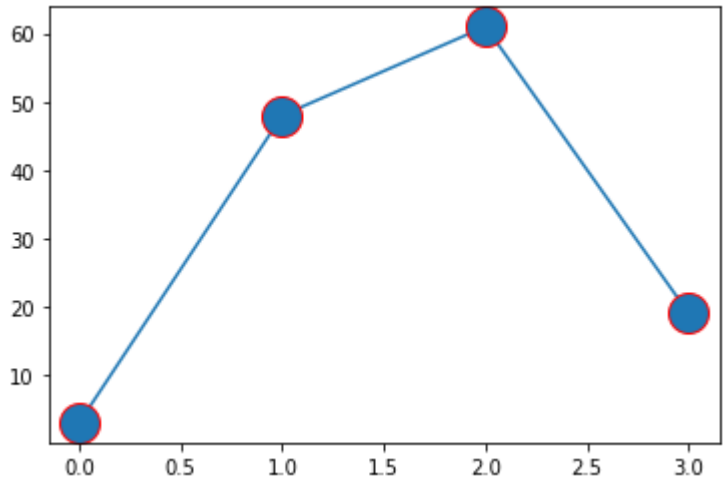

```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([123, 128, 56, 134])

plt.plot(ypoints, 'o:r')
plt.show()
```




```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([33, 84, 15, 10, 55, 8])

plt.plot(ypoints)
plt.show()
```

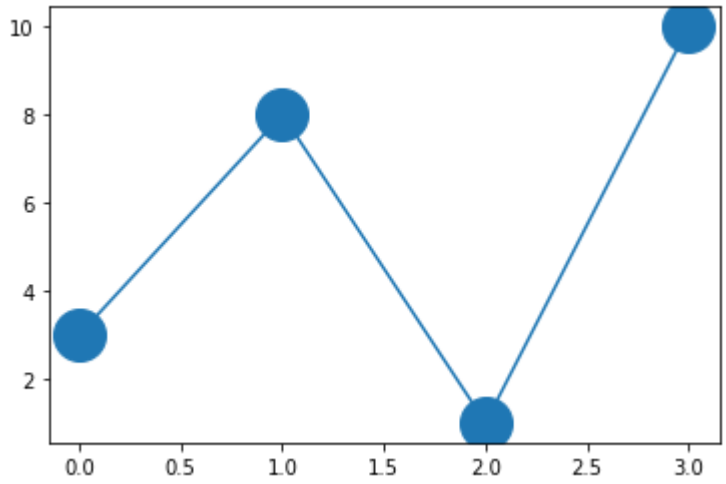



```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([3, 48,61, 19])

plt.plot(ypoints, marker = 'o', ms = 20, mec = 'r')
plt.show()
```

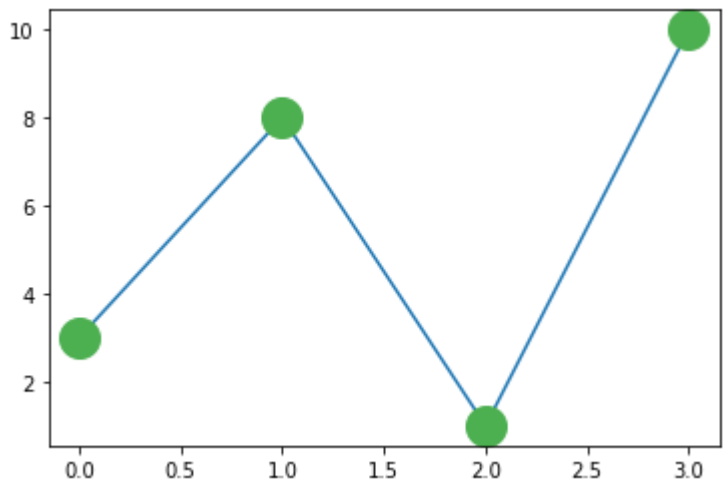



```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([3, 48,61, 19])

plt.plot(ypoints, marker = 'o', ms = 20, mec = 'r',mfc='r')
plt.show()
```

```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([3, 8, 1, 10])

plt.plot(ypoints, marker = 'o', ms = 26) ##marker sizes chhanging
plt.show()
```

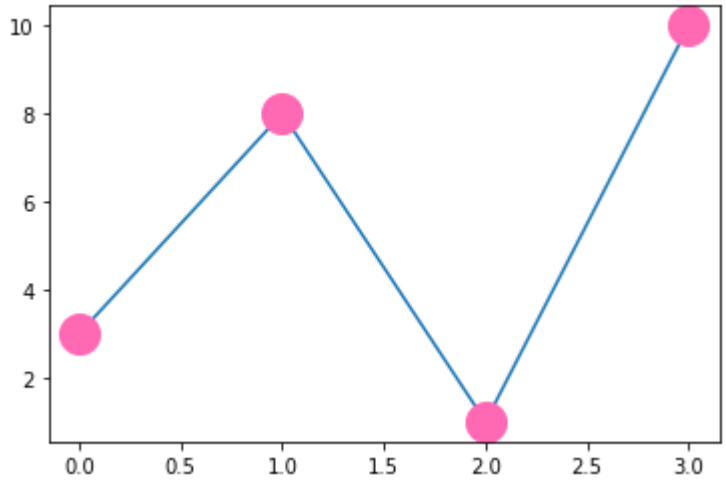



```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([3, 8, 1, 10])

plt.plot(ypoints, marker = 'o', ms = 20, mec = '#4CAF50', mfc = '#4CAF50') ##marker sizes chh
plt.show()
```

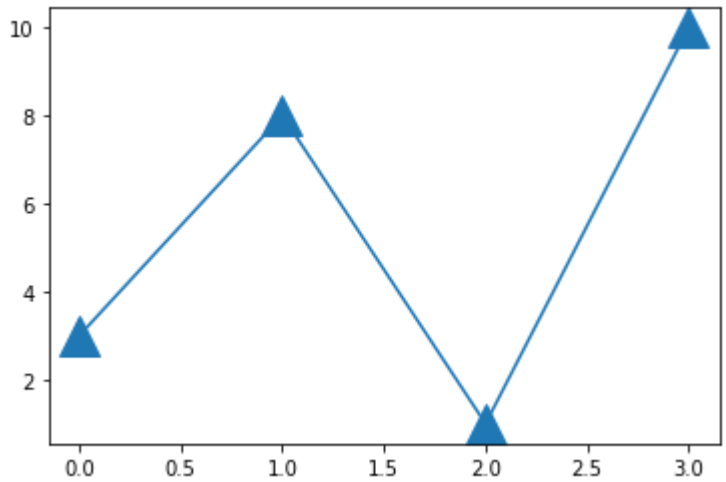



```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([3, 8, 1, 10])
```

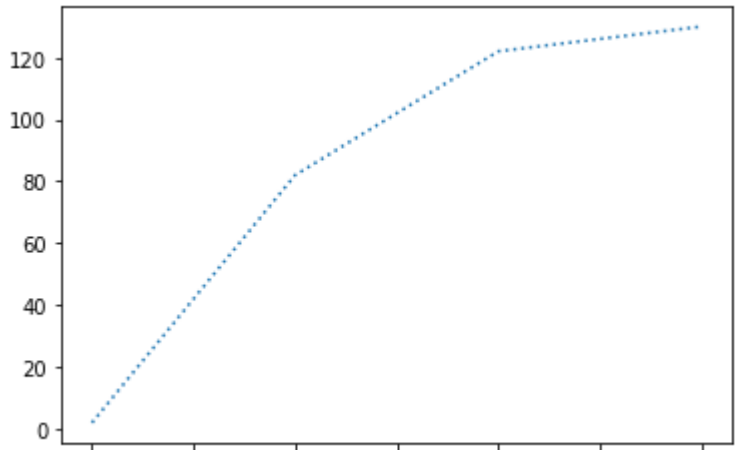
```
plt.plot(ypoints, marker = 'o', ms = 20, mec = 'hotpink', mfc = 'hotpink') ##marker sizes chh
plt.show()
```



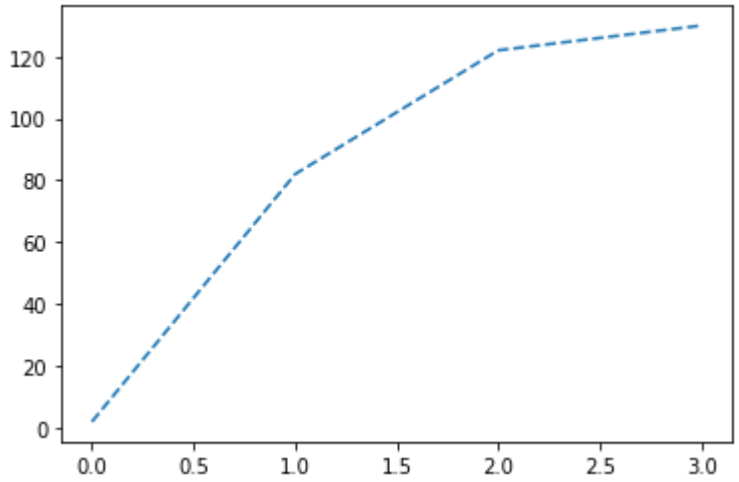

```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([3, 8, 1, 10])

plt.plot(ypoints, marker = '^',ms=20)
plt.show()
```



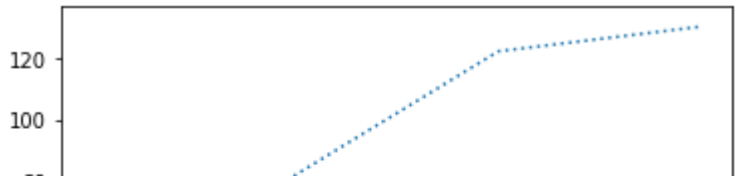

```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([2, 82, 122, 130])

plt.plot(ypoints, linestyle = 'dotted')
plt.show()
```



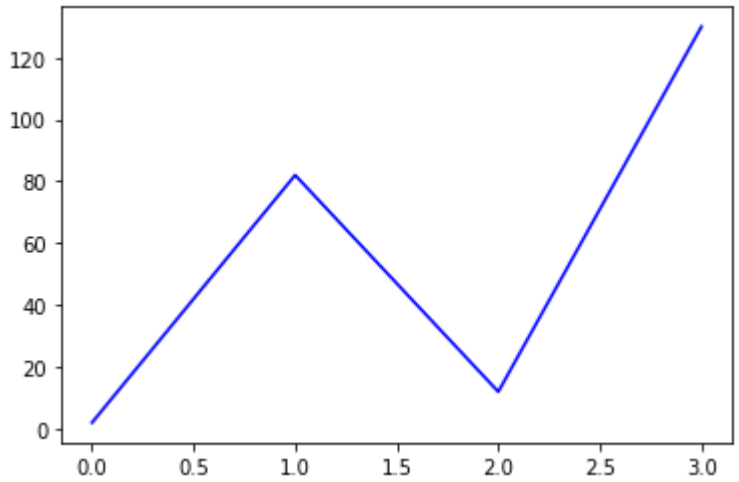

```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([2, 82, 122, 130])

plt.plot(ypoints, linestyle = 'dashed')
plt.show()
```



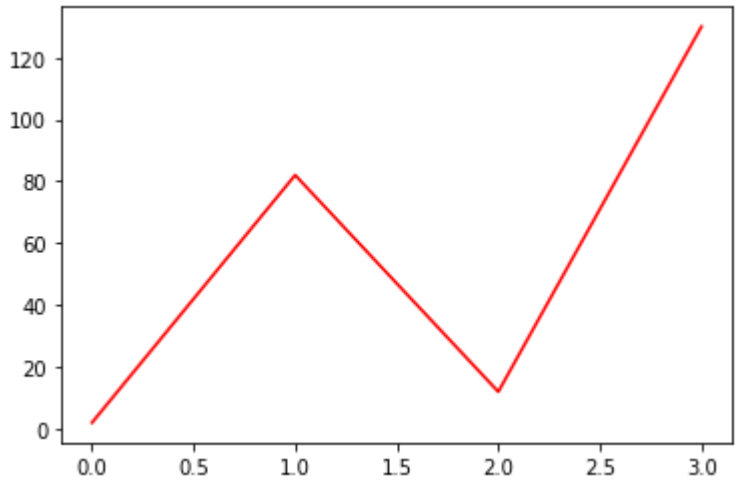

```
import matplotlib.pyplot as plt
import numpy as np
plt.plot(ypoints, ls = ':')
ypoints = np.array([2, 82, 122, 130])

plt.show()
```



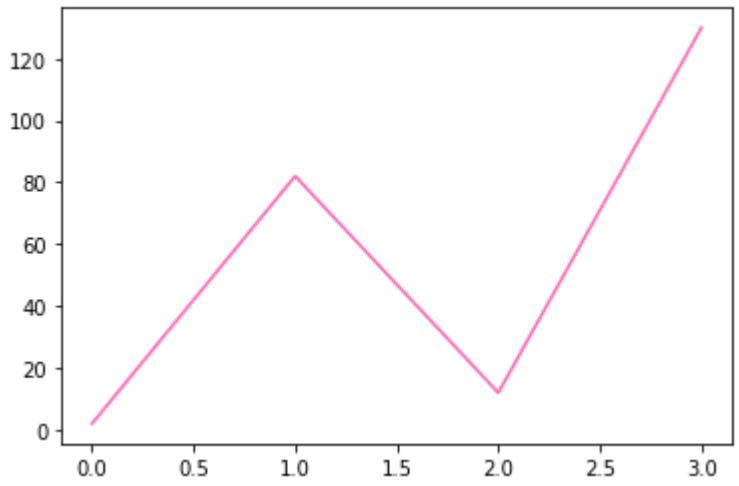

```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([2, 82, 12, 130])

plt.plot(ypoints, color = 'b')
plt.show()
```



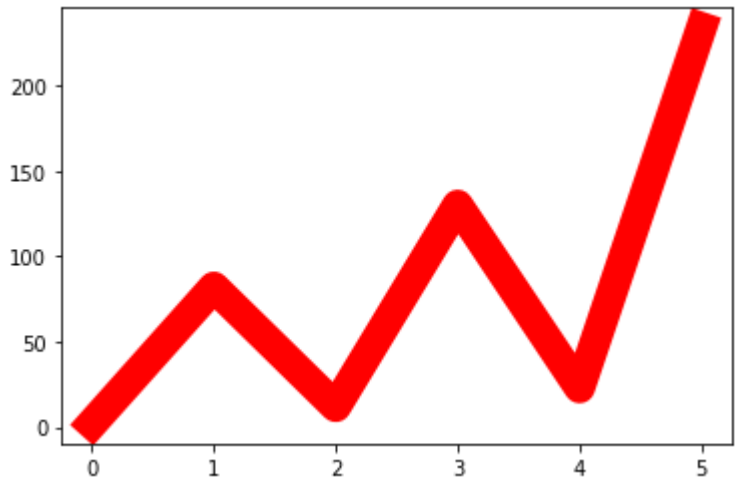

```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([2, 82, 12, 130])

plt.plot(ypoints, color = 'r')
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([2, 82, 12, 130])

plt.plot(ypoints, color = 'hotpink')
plt.show()
```

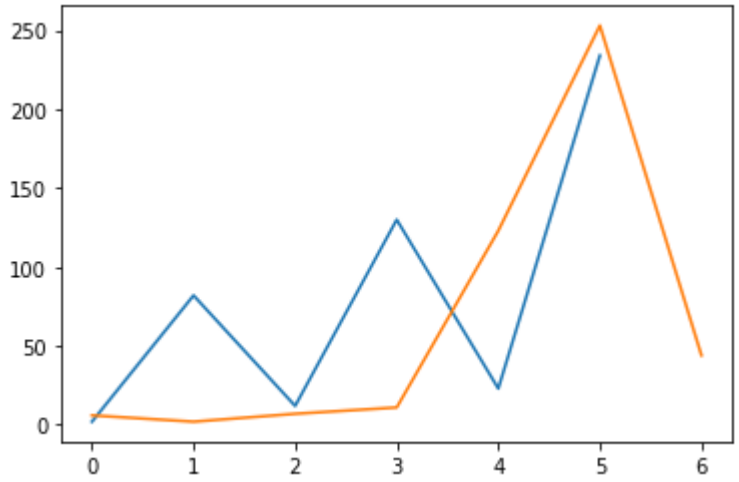



```
import matplotlib.pyplot as plt
import numpy as np

ypoints = np.array([2, 82, 12, 130,23,234])

plt.plot(ypoints, linewidth = '15.5',color="red")
plt.show()
```

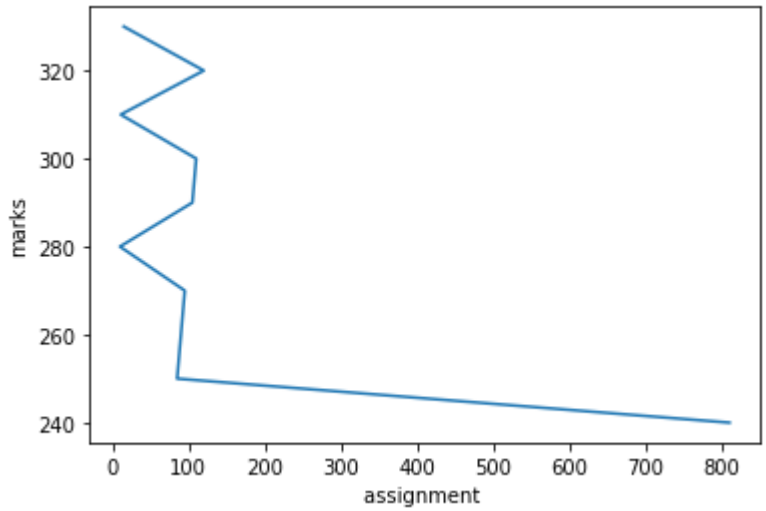



```
import matplotlib.pyplot as plt
import numpy as np

y1 = np.array([2, 82, 12, 130,23,234])
y2 = np.array([6, 2, 7, 11,123,253,44])
```

```
plt.plot(y1)
plt.plot(y2)

plt.show()
```

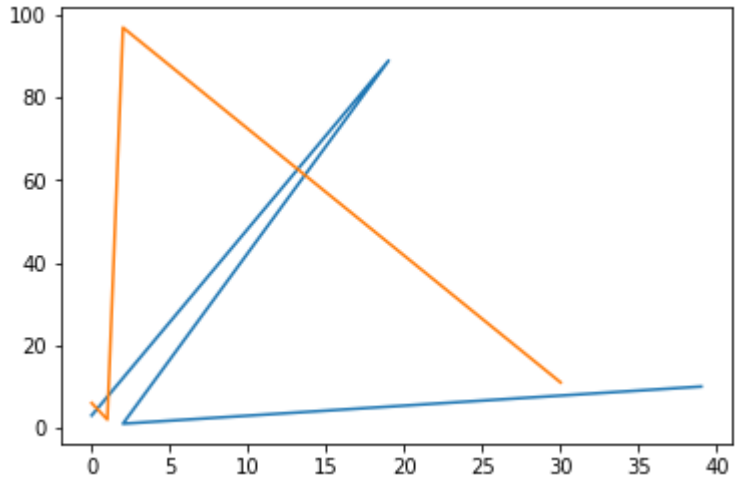



```
import numpy as np
import matplotlib.pyplot as plt

x = np.array([810, 85, 90, 95, 10, 105, 110, 11, 120, 15])
y = np.array([240, 250, 260, 270, 280, 290, 300, 310, 320, 330])

plt.plot(x, y)

plt.xlabel("assignment ")
plt.ylabel("marks")

plt.show()
```




```
import matplotlib.pyplot as plt
import numpy as np
```

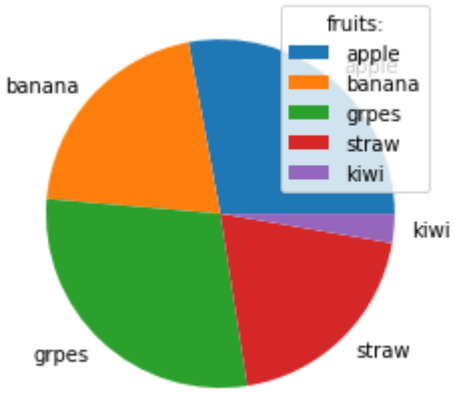
```
x1 = np.array([0, 19, 2, 39])
y1 = np.array([3, 89, 1, 10])
x2 = np.array([0, 1, 2, 30])
y2 = np.array([6, 2, 97, 11])

plt.plot(x1, y1, x2, y2)
plt.show()
```



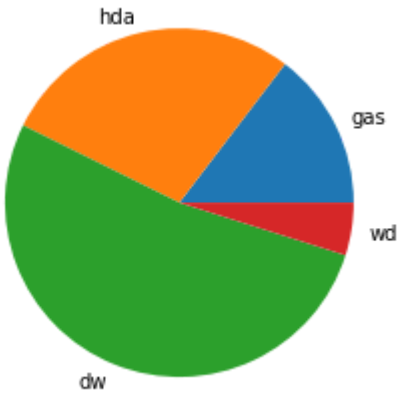

```
import numpy as np
import matplotlib.pyplot as plt

x = np.array([810, 85, 90, 95, 10, 105, 110, 11, 120, 15])
y = np.array([240, 250, 260, 270, 280, 290, 300, 310, 320, 330])

plt.plot(x, y)

plt.xlabel("assignment ")
plt.ylabel("marks")
plt.title("grading")

plt.show()
```

grading

```
import matplotlib.pyplot as plt
import numpy as np
y=np.array([31,23,32,22,3])
mylabels=["apple","banana","grpes","straw","kiwi"]
plt.pie(y,labels=mylabels)
plt.legend(title="fruits:")
plt.show()
```



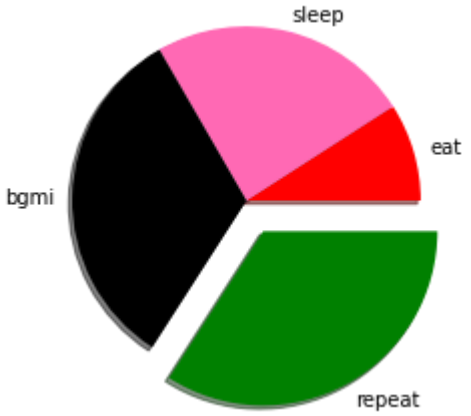

```
import matplotlib.pyplot as plt
import numpy as num
y=np.array([12,23,43,4])
mylabels=["gas","hda","dw","wd"]
plt.pie(y,labels=mylabels)

plt.show()
```




```
import matplotlib.pyplot as plt
import numpy as num
y=np.array([12,32,43,45])
mylabels=["eat","sleep","bgmi","repeat"]
mycolors=["red","hotpink","black","green"]
```

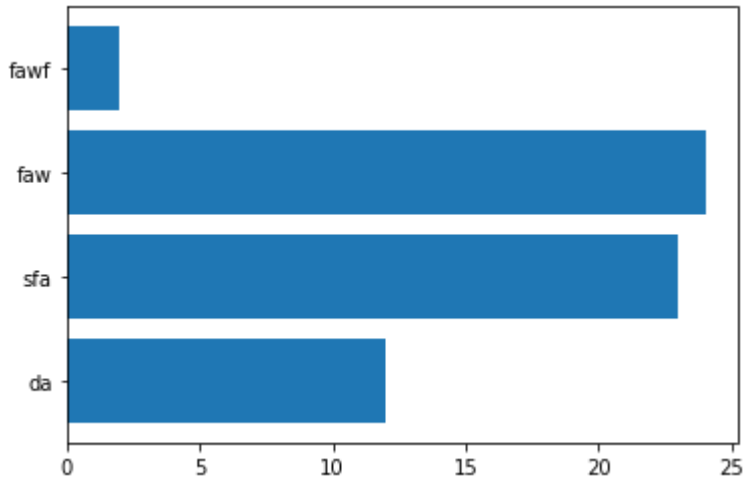
```
plt.pie(y,labels=mylabels,colors=mycolors)
plt.show()
```

```
import matplotlib.pyplot as plt
import numpy as num
y=np.array([12,32,43,45])
mylabels=["eat","sleep","bgmi","repeat"]
mycolors=["red","hotpink","black","green"]
myexplode=[0,0,0,0.2]
plt.pie(y,labels=mylabels,explode=myexplode,colors=mycolors,shadow=True)
plt.show()
```

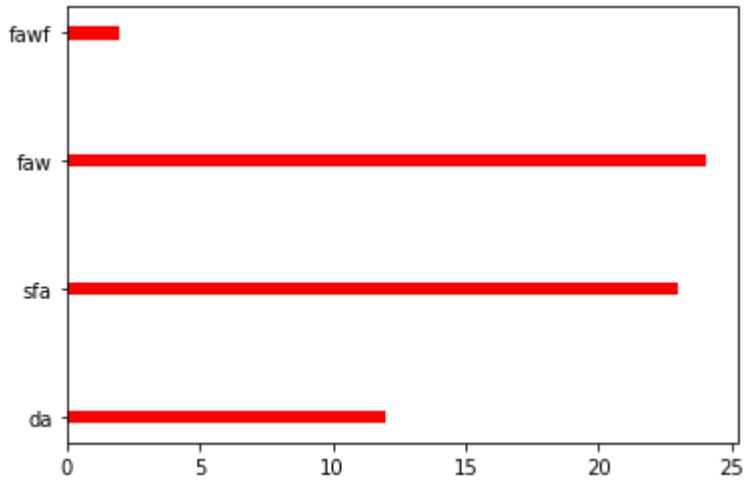
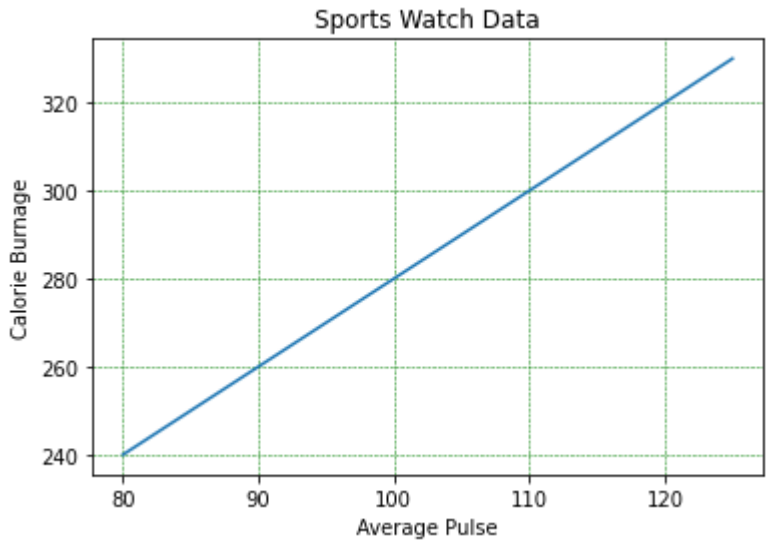



```
import matplotlib.pyplot as plt
import numpy as num
x=np.array(["da","sfa","faw","fawf"])
y=np.array([12,23,24,2])
plt.bar(x,y)
plt.show()
```

```
import matplotlib.pyplot as plt
import numpy as num
x=np.array(["da","sfa","faw","fawf"])
y=np.array([12,23,24,2])
plt.barh(x,y)
plt.show()
```




```
import matplotlib.pyplot as plt
import numpy as num
x=np.array(["da","sfa","faw","fawf"])
y=np.array([12,23,24,2])
plt.barh(x,y,color="red",height=0.1)
plt.show()
```



```
import numpy as np
import matplotlib.pyplot as plt

x = np.array([80, 85, 90, 95, 100, 105, 110, 115, 120, 125])
y = np.array([240, 250, 260, 270, 280, 290, 300, 310, 320, 330])

plt.title("Sports Watch Data")
plt.xlabel("Average Pulse")
plt.ylabel("Calorie Burnage")

plt.plot(x, y)

plt.grid(color = 'green', linestyle = '--', linewidth = 0.5)

plt.show()
```