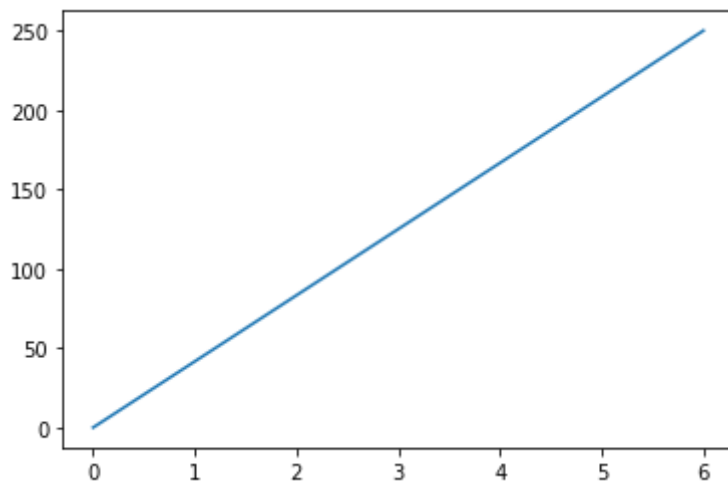


```
import matplotlib.pyplot as plt
import numpy as np
```

```
xpoints = np.array([0, 6])
ypoints = np.array([0, 250])
```

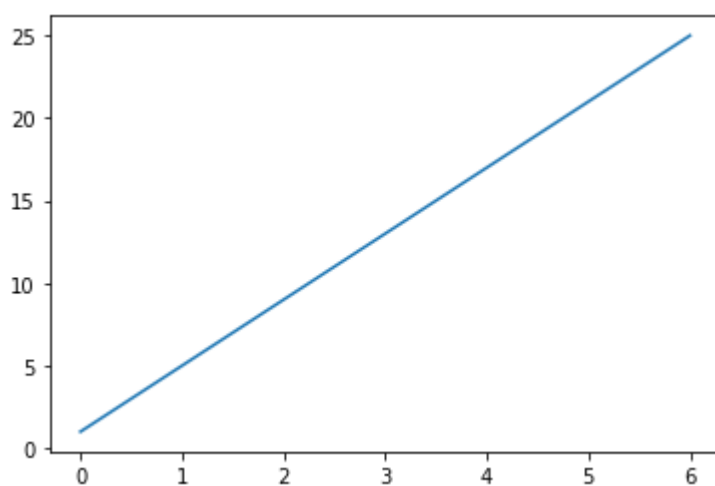
```
plt.plot(xpoints, ypoints)
plt.show()
```



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

```
xpoints = np.array([0, 6])
ypoints = np.array([1, 25])
```

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

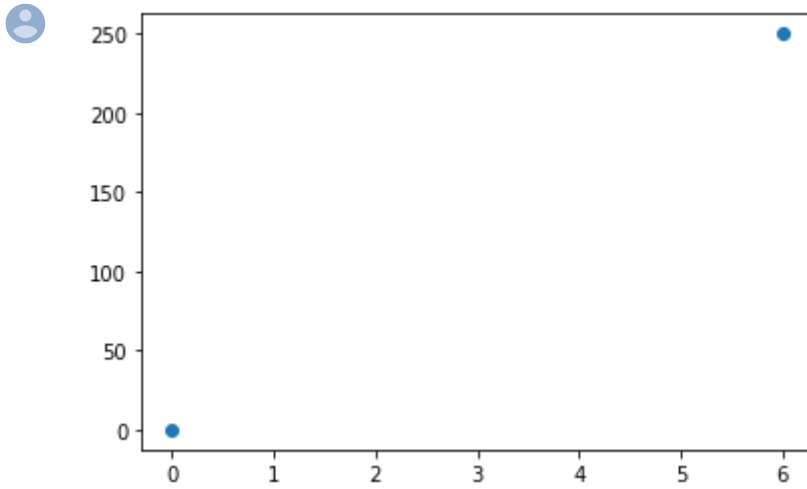


```
import matplotlib.pyplot as plt
import numpy as np
```

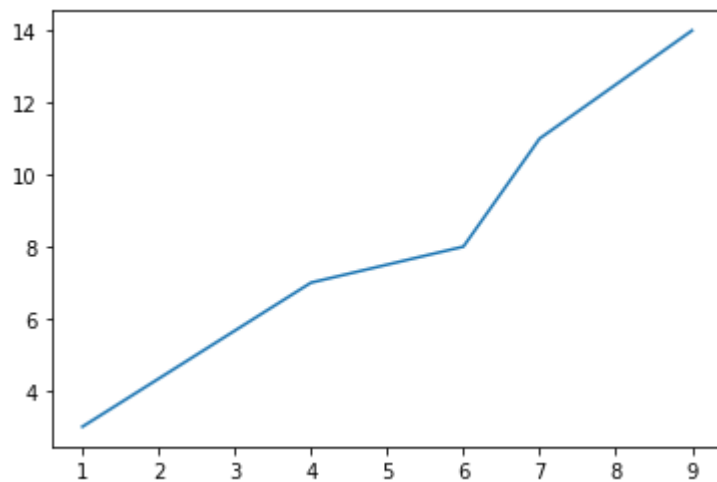
```
xpoints = np.array([0, 6])
```

```
xpoints = np.array([0, 6])
ypoints = np.array([0, 250])

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

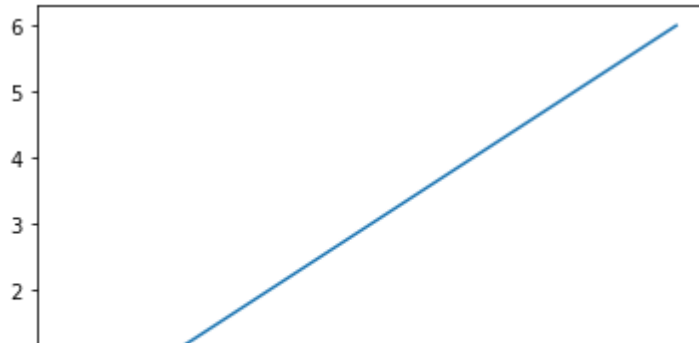


```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints)
plt.show()
```

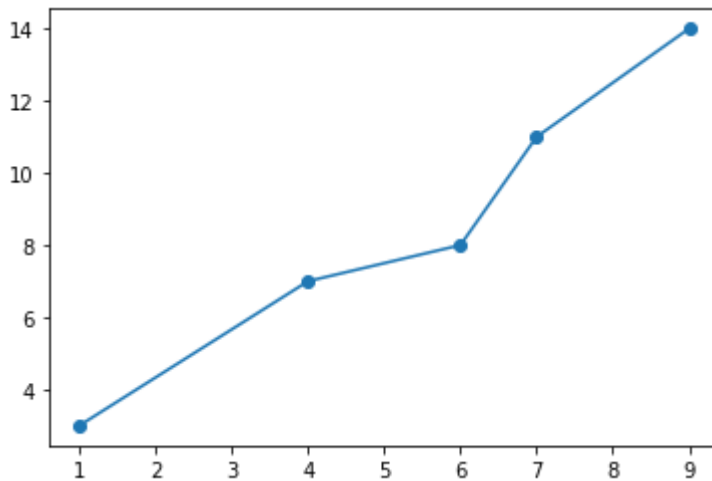


```
import matplotlib.pyplot as plt
import numpy as np
ypoints=np.array([3,7,8,4,9])
plt.plot(xpoints)
plt.show
```

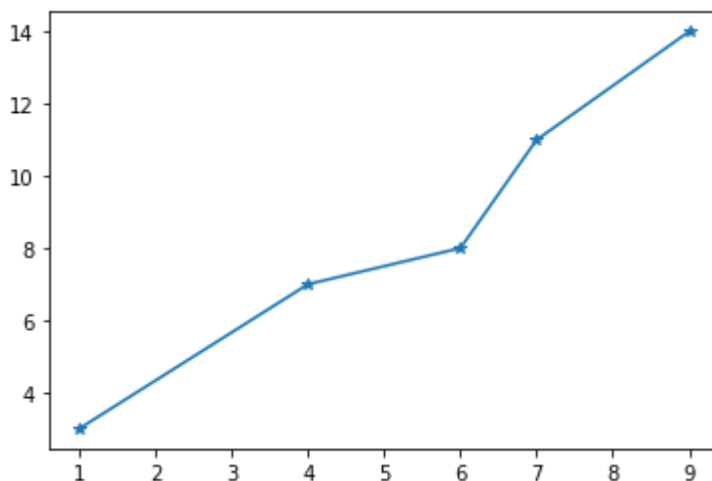
```
<function matplotlib.pyplot.show>
```



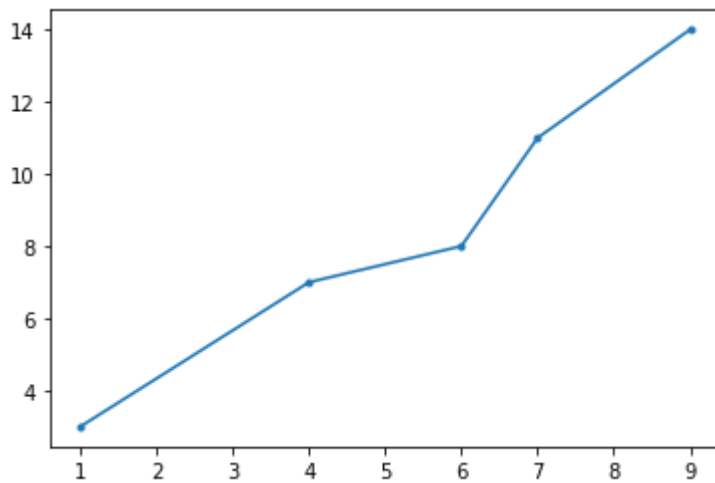
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,marker = 'o')
plt.show()
```



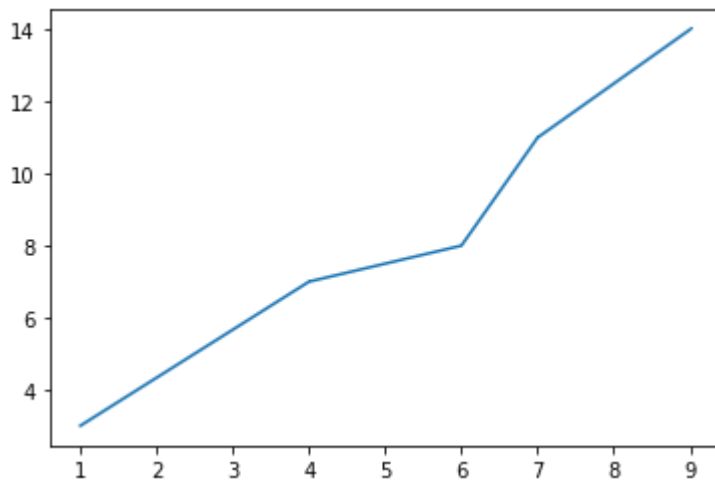
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,marker = '*')
plt.show()
```



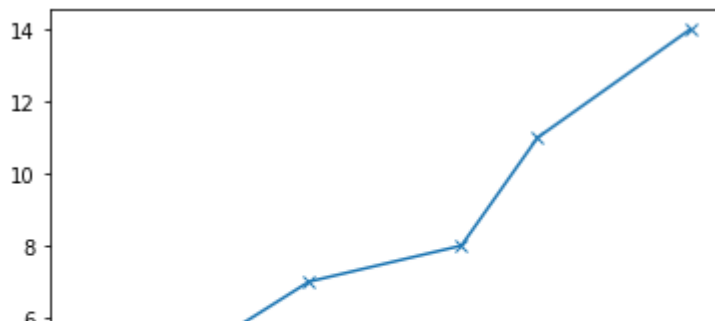
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,marker = '.')
plt.show()
```



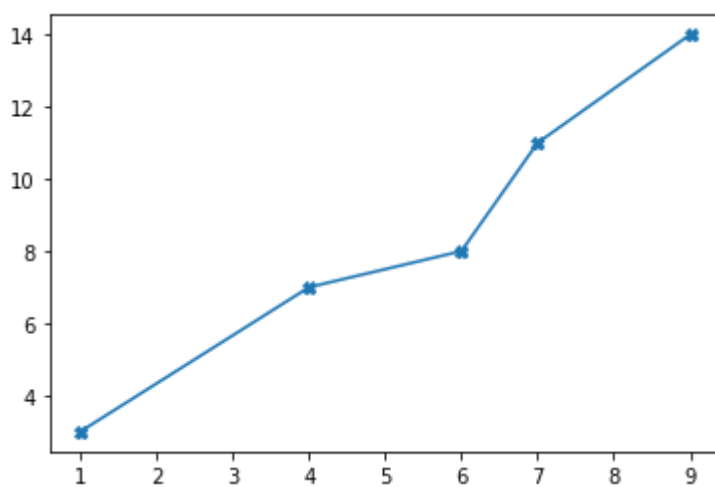
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,marker = ',')
plt.show()
```



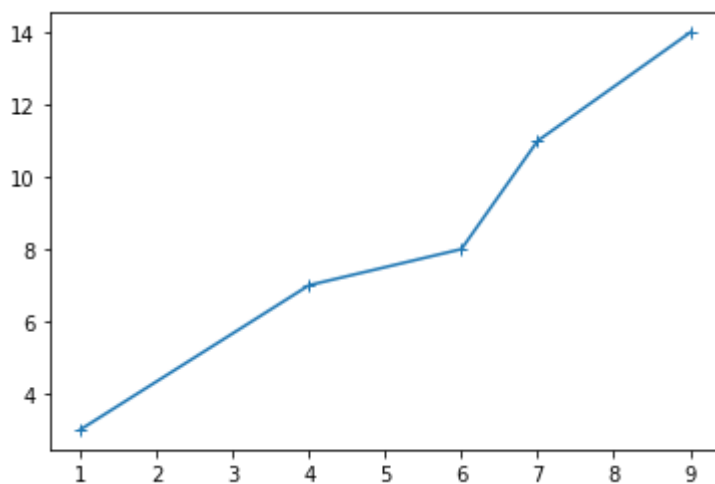
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,marker = 'x')
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,marker = 'X')
plt.show()
```

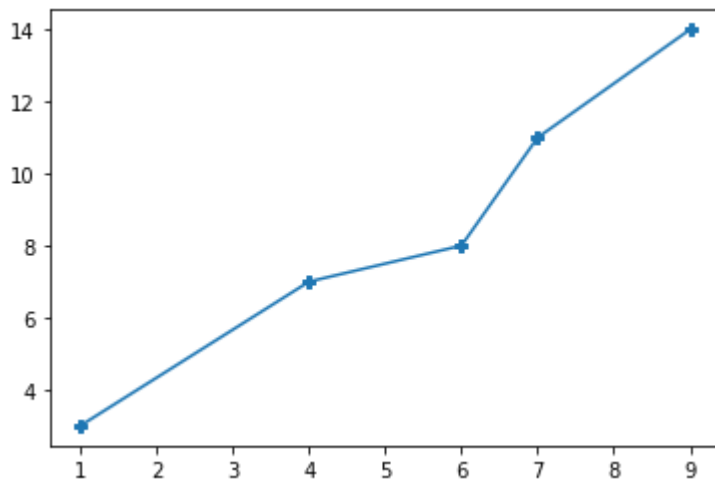


```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,marker = '+')
plt.show()
```

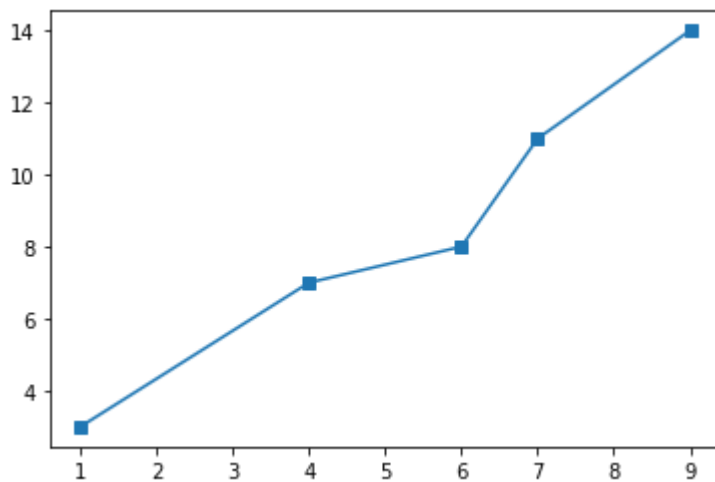


```
import matplotlib.pyplot as plt
import numpy as np
```

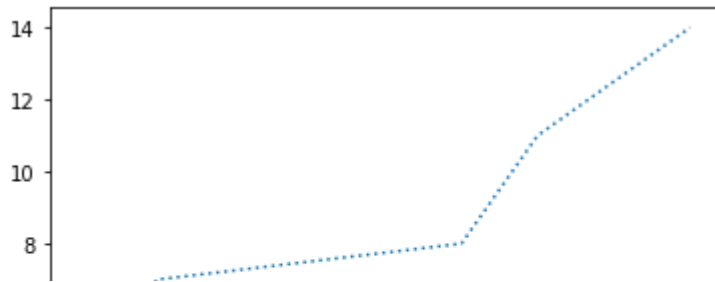
```
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,marker = 'P')
plt.show()
```



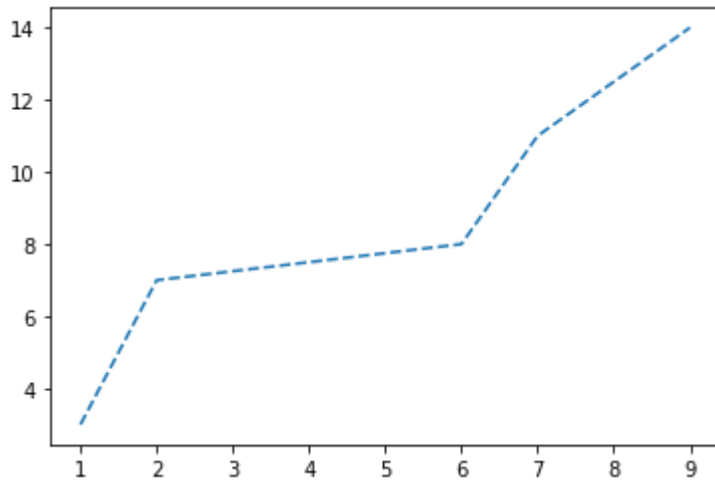
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,marker = 's')
plt.show()
```



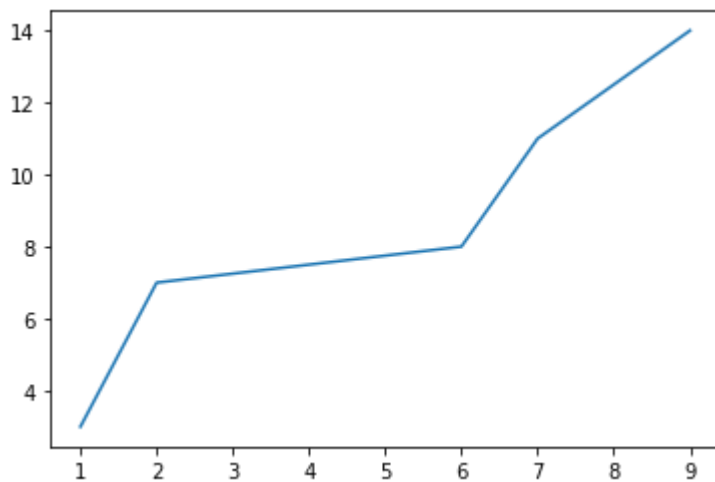
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,linestyle='dotted')
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,linestyle='dashed')
plt.show()
```

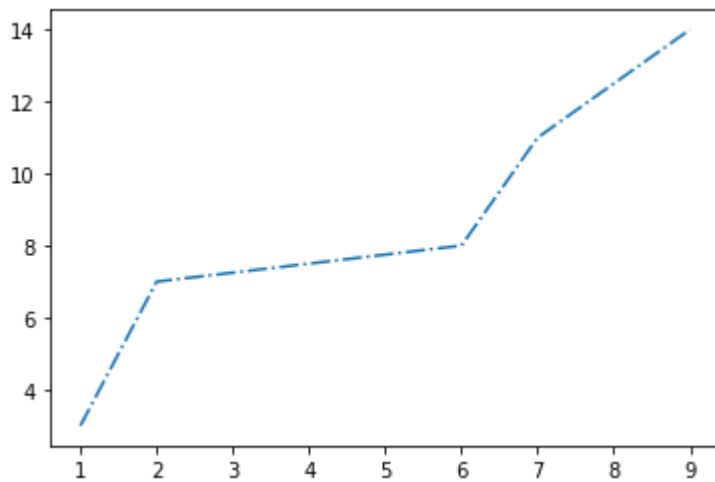


```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,linestyle='solid')
plt.show()
```

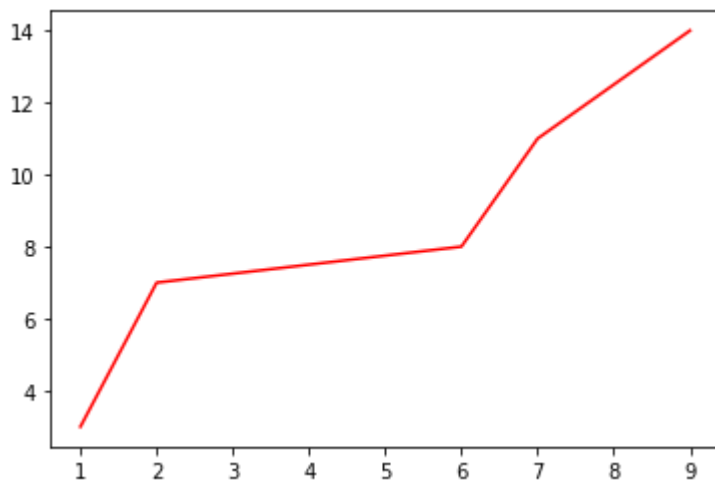


```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,7,9])
```

```
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,linestyle='dashdot')
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,color='r')
plt.show()
```

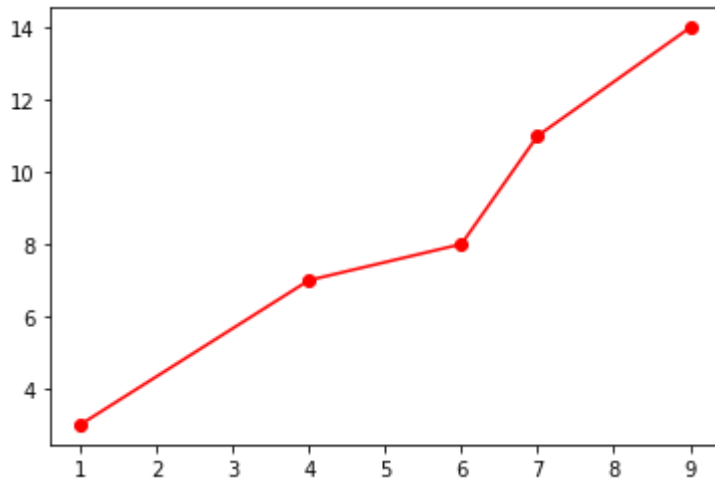


```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,2,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,color='g')
plt.show()
```

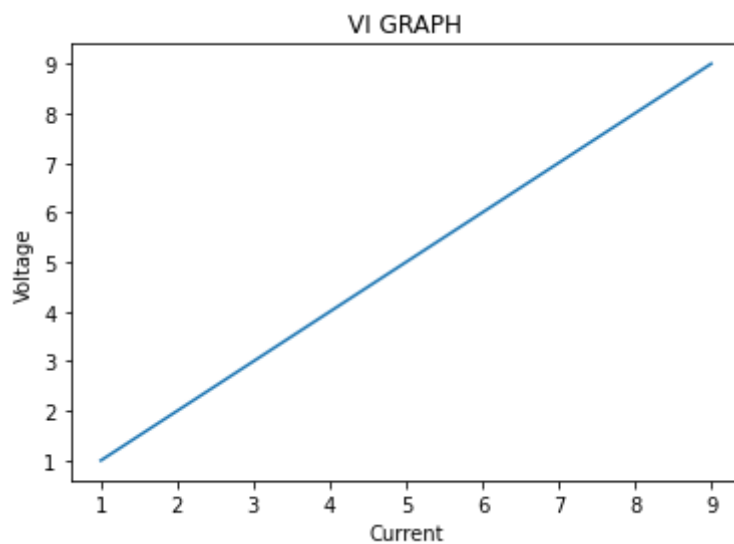




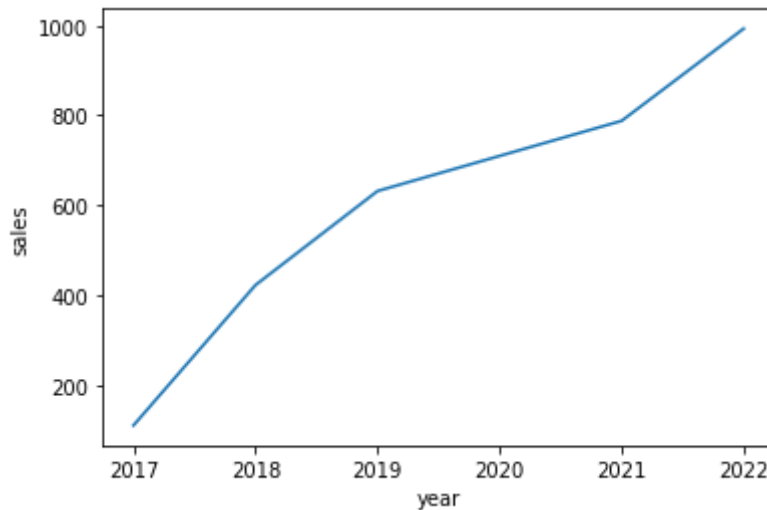
```
import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,color='r',marker='o')
plt.show()
```



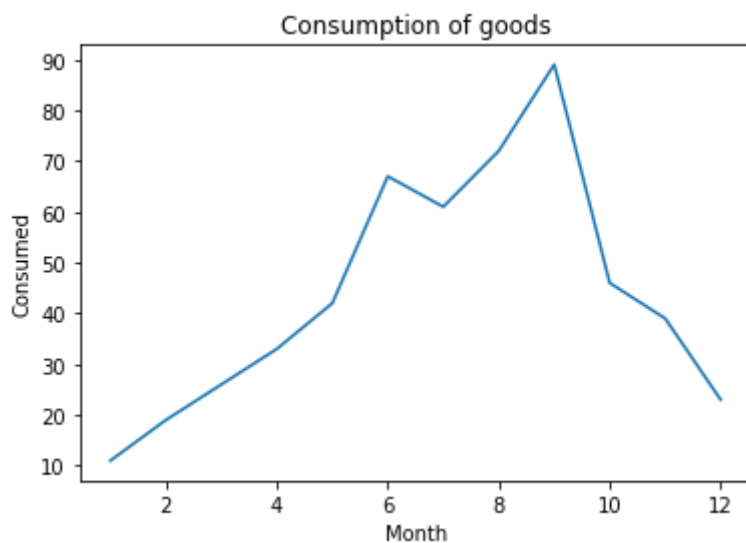
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,4,6,7,9])
y=np.array([1,4,6,7,9])
plt.plot(x,y)
plt.title("VI GRAPH")
plt.ylabel("Voltage")
plt.xlabel("Current")
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([2017,2018,2019,2021,2022])
y=np.array([111,423,632,788,993])
plt.plot(x,y)
plt.ylabel("sales")
plt.xlabel("year")
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y=np.array([11,19,26,33,42,67,61,72,89,46,39,23])
plt.plot(x,y)
plt.title("Consumption of goods")
plt.ylabel("Consumed")
plt.xlabel("Month")
plt.show()
```

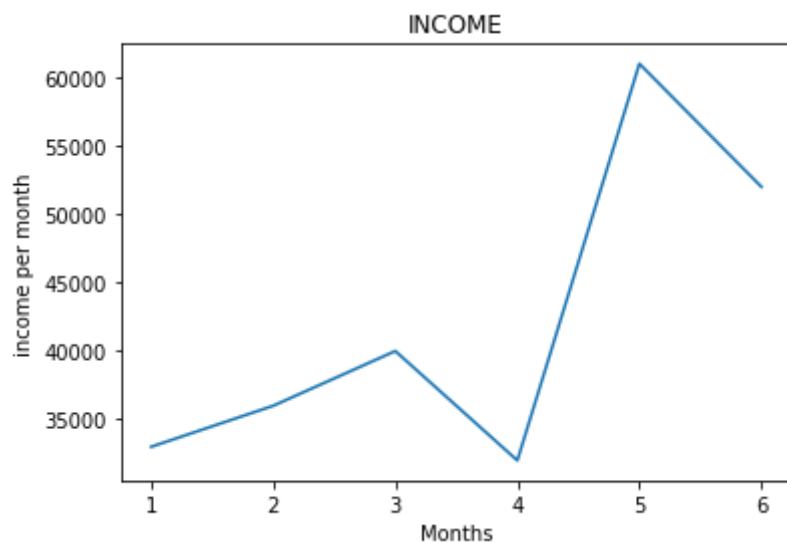


```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6])
```

```

y=np.array([33000,36000,40000,32000,61000,52000])
plt.plot(x,y)
plt.title("INCOME")
plt.ylabel("income per month")
plt.xlabel("Months")
plt.show()

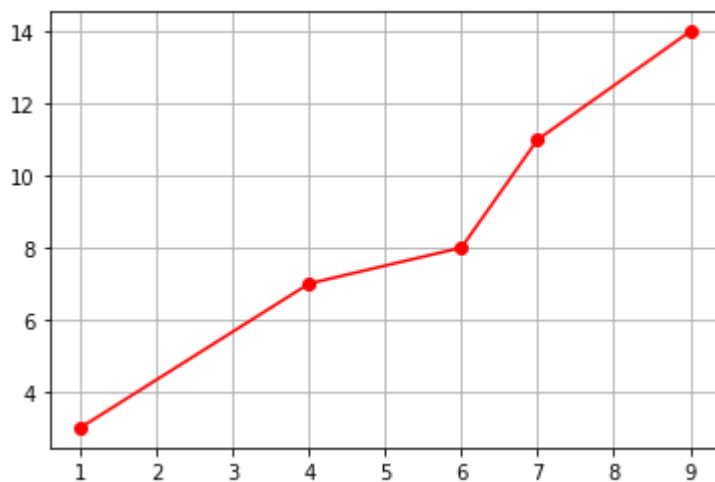
```



```

import matplotlib.pyplot as plt
import numpy as np
xpoints=np.array([1,4,6,7,9])
ypoints=np.array([3,7,8,11,14])
plt.plot(xpoints,ypoints,color='r',marker='o')
plt.grid()
plt.show()

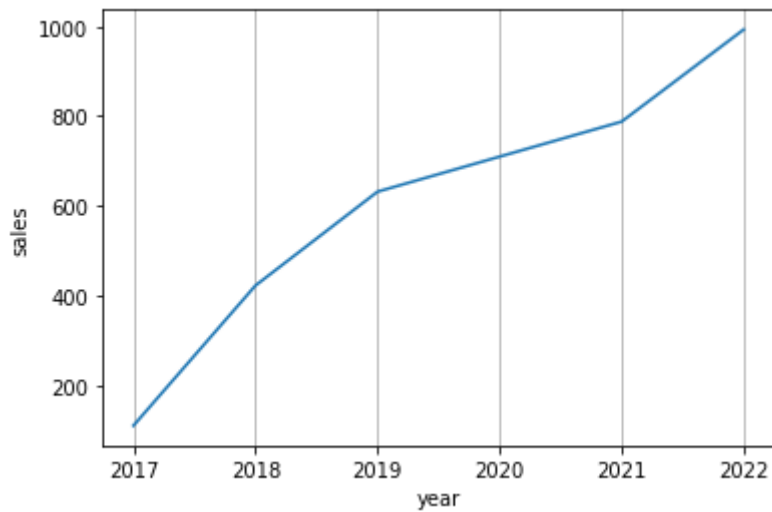
```



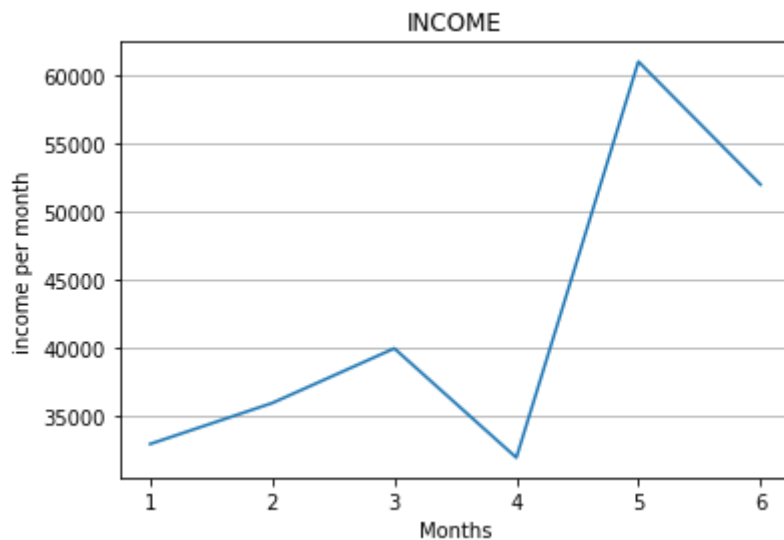
```

import matplotlib.pyplot as plt
import numpy as np
x=np.array([2017,2018,2019,2021,2022])
y=np.array([111,423,632,788,993])
plt.plot(x,y)
plt.ylabel("sales")
plt.xlabel("year")
plt.grid(axis='x')
plt.show()

```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6])
y=np.array([33000,36000,40000,32000,61000,52000])
plt.plot(x,y)
plt.title("INCOME")
plt.ylabel("income per month")
plt.xlabel("Months")
plt.grid(axis='y')
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y=np.array([11,19,26,33,42,67,61,72,89,46,39,23])
plt.plot(x,y)
plt.title("Consumption of goods")
plt.ylabel("Consumed")
plt.xlabel("Month")
plt.grid(color='r',linestyle='dashdot')
plt.show()
```

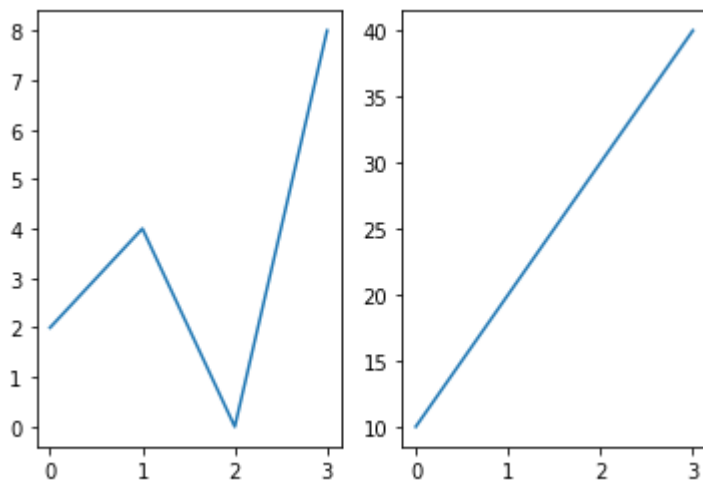


```
import matplotlib.pyplot as plt
import numpy as np
```

```
x = np.array([0, 1, 2, 3])
y = np.array([2, 4, 0, 8])
plt.subplot(1, 2, 1)
plt.plot(x,y)
```

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

```
plt.show()
```



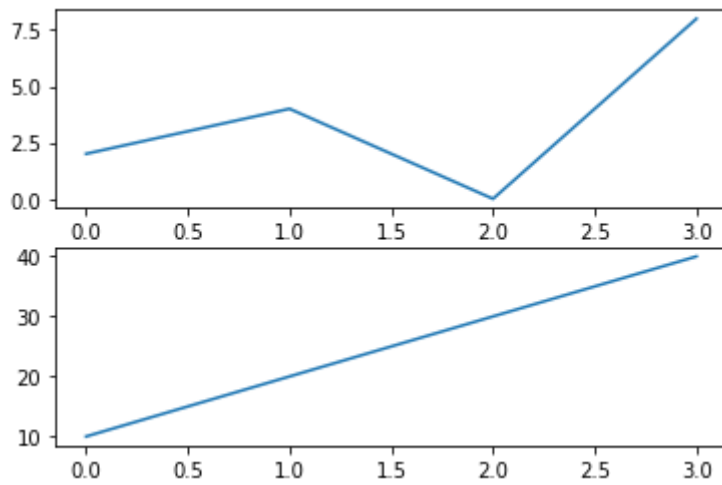
```
import matplotlib.pyplot as plt
import numpy as np
```

```
x = np.array([0, 1, 2, 3])
y = np.array([2, 4, 0, 8])
plt.subplot(2, 1, 1)
plt.plot(x,y)
```

```
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()
```

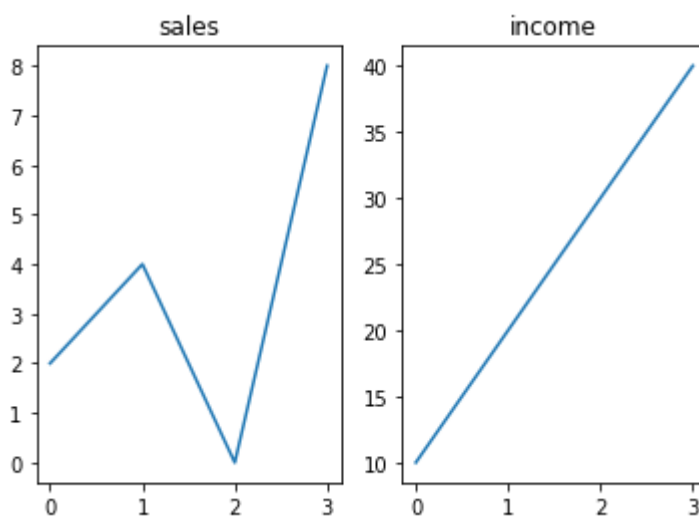


```
import matplotlib.pyplot as plt
import numpy as np
```

```
x = np.array([0, 1, 2, 3])
y = np.array([2, 4, 0, 8])
plt.subplot(1, 2, 1)
plt.plot(x,y)
plt.title("sales")
```

```
x = np.array([0, 1, 2, 3])
y = np.array([10, 20, 30, 40])
plt.subplot(1, 2, 2)
plt.plot(x,y)
plt.title("income")
```

```
plt.show()
```



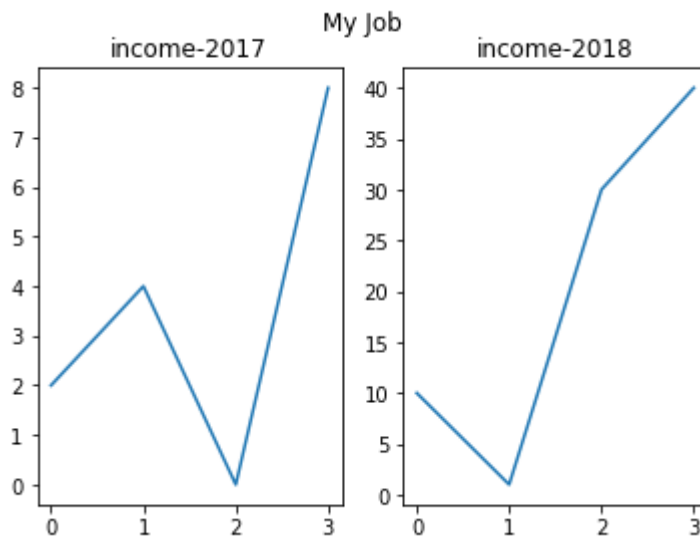
```
import matplotlib.pyplot as plt
import numpy as np
```

```

x = np.array([0, 1, 2, 3])
y = np.array([2, 4, 0, 8])
plt.subplot(1, 2, 1)
plt.plot(x,y)
plt.title("income-2017")

x = np.array([0, 1, 2, 3])
y = np.array([10, 1, 30, 40])
plt.subplot(1, 2, 2)
plt.plot(x,y)
plt.title("income-2018")
plt.suptitle("My Job")
plt.show()

```



```

import matplotlib.pyplot as plt
import numpy as np

```

```

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

```

```

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

```

```

x = np.array([0, 1, 2, 3])
y = np.array([22, 2, 36, 5])

```

```

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

```

```

x = np.array([0, 1, 2, 3])
y = np.array([8, 1, 14, 7])

```

```

plt.subplot(2, 2, 3)
plt.plot(x,y)

```

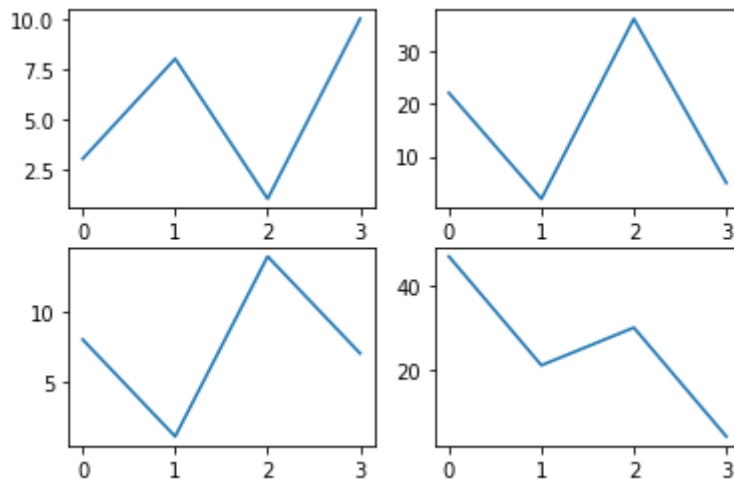
```

x = np.array([0, 1, 2, 3])
y = np.array([47, 21, 30, 4])

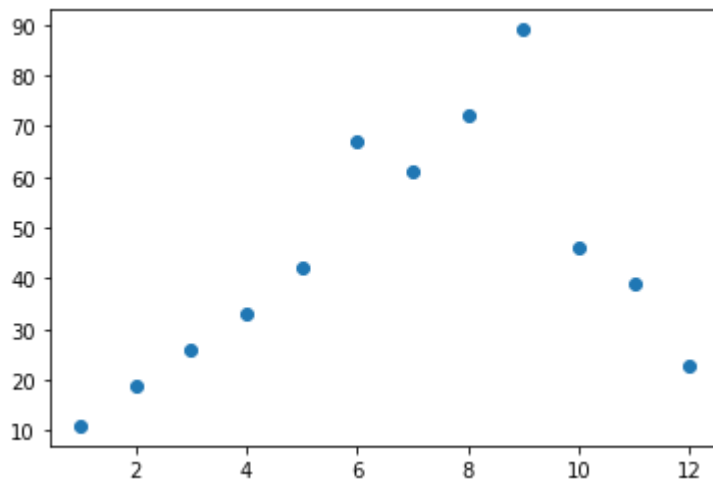
```

```
plt.subplot(2, 2, 4)
plt.plot(x,y)

plt.show()
```



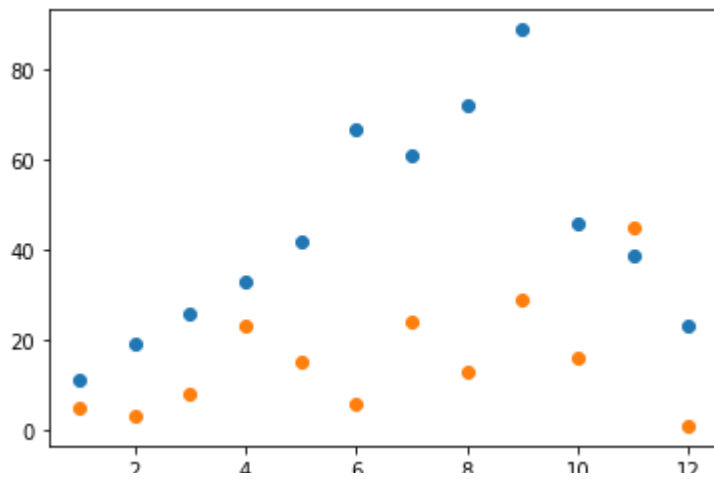
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y=np.array([11,19,26,33,42,67,61,72,89,46,39,23])
plt.scatter(x,y)
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y=np.array([11,19,26,33,42,67,61,72,89,46,39,23])
plt.scatter(x,y)
```

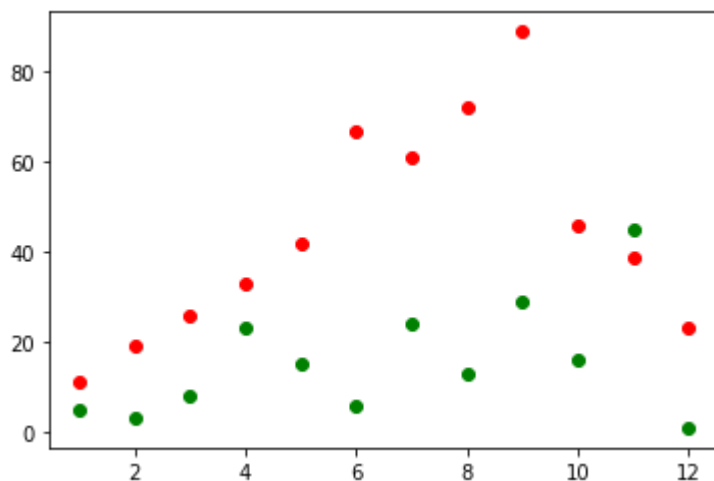
```
x = np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y = np.array([5,3,8,23,15,6,24,13,29,16,45,1])
plt.scatter(x, y)
plt.show()
```



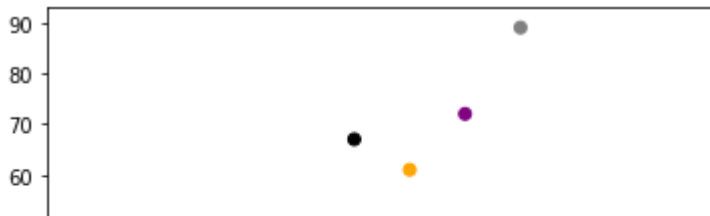


```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y=np.array([11,19,26,33,42,67,61,72,89,46,39,23])
plt.scatter(x,y,color='red')
```

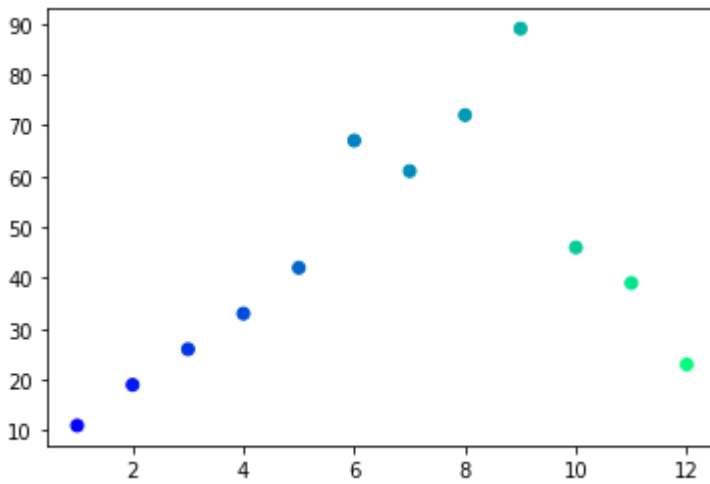
```
x = np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y = np.array([5,3,8,23,15,6,24,13,29,16,45,1])
plt.scatter(x, y,color='green')
plt.show()
```



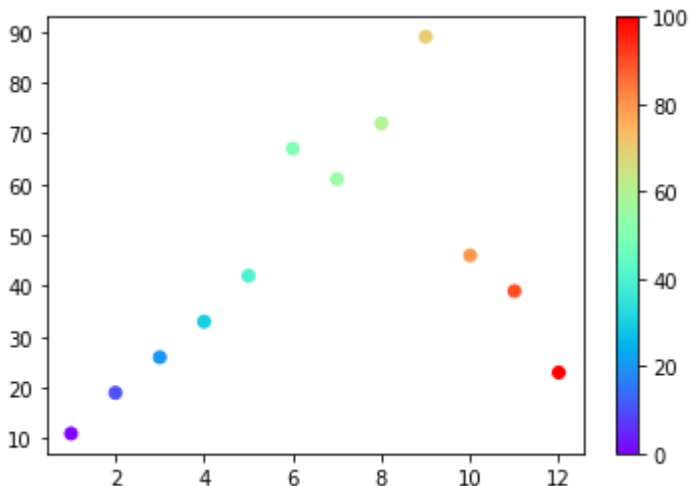
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y=np.array([11,19,26,33,42,67,61,72,89,46,39,23])
colors = np.array(["red", "green", "blue", "yellow", "pink", "black", "orange", "purple", "gray", ""])
plt.scatter(x,y,c=colors)
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y=np.array([11,19,26,33,42,67,61,72,89,46,39,23])
colors = np.array([0, 10, 20, 30, 40, 50, 55, 60, 70, 80, 90, 100])
plt.scatter(x, y, c=colors, cmap='winter')
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y=np.array([11,19,26,33,42,67,61,72,89,46,39,23])
colors = np.array([0, 10, 20, 30, 40, 50, 55, 60, 70, 80, 90, 100])
plt.scatter(x, y, c=colors, cmap='rainbow')
plt.colorbar()
plt.show()
```

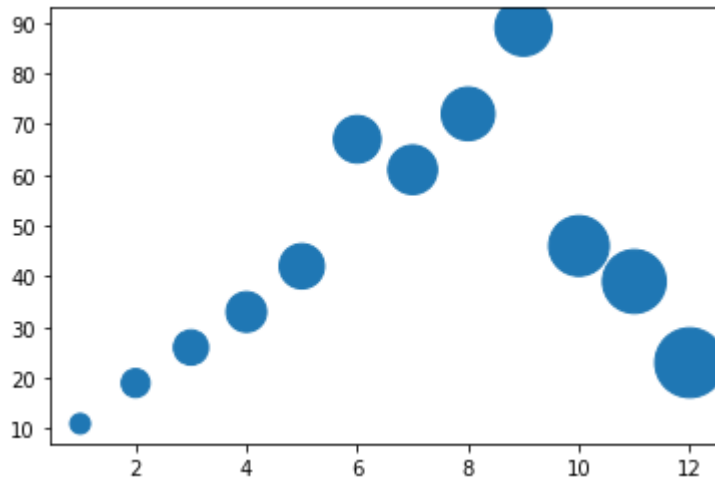


```
import matplotlib.pyplot as plt
import numpy as np
```

```

x=np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y=np.array([11,19,26,33,42,67,61,72,89,46,39,23])
sizes = np.array([100, 200, 300, 400, 500, 550, 600, 700, 800, 900, 1000, 1200])
plt.scatter(x, y, s=sizes)
plt.show()

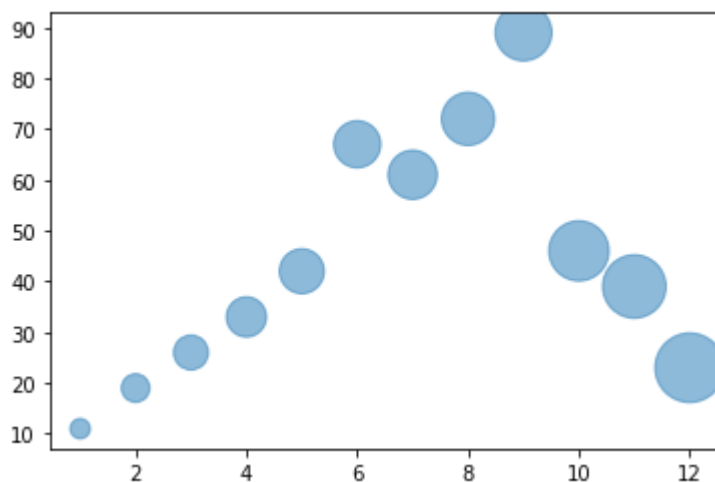
```



```

import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y=np.array([11,19,26,33,42,67,61,72,89,46,39,23])
sizes = np.array([100, 200, 300, 400, 500, 550, 600, 700, 800, 900, 1000, 1200])
plt.scatter(x, y, s=sizes,alpha=0.5)
plt.show()

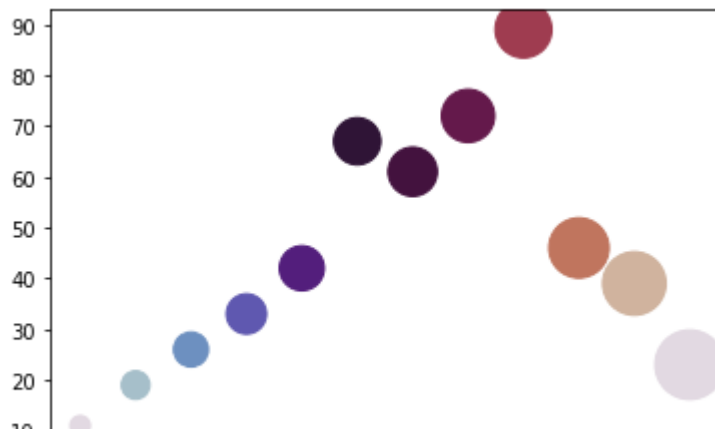
```



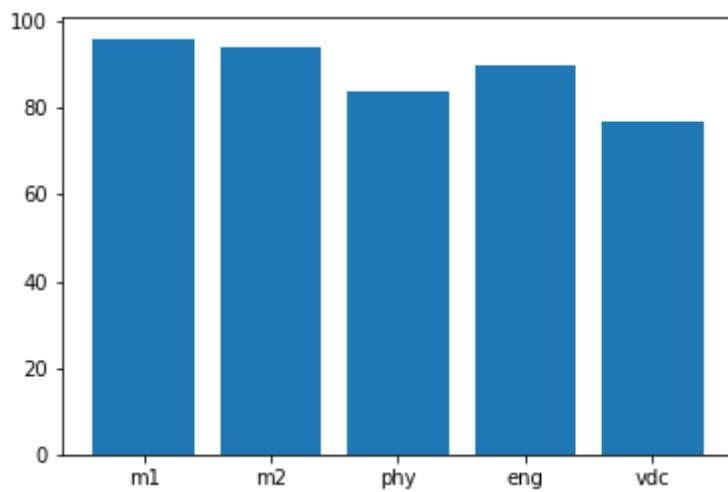
```

import matplotlib.pyplot as plt
import numpy as np
x=np.array([1,2,3,4,5,6,7,8,9,10,11,12])
y=np.array([11,19,26,33,42,67,61,72,89,46,39,23])
colors = np.array([0, 10, 20, 30, 40, 50, 55, 60, 70, 80, 90, 100])
sizes = np.array([100, 200, 300, 400, 500, 550, 600, 700, 800, 900, 1000, 1200])
plt.scatter(x, y, s=sizes,c=colors,cmap='twilight')
plt.show()

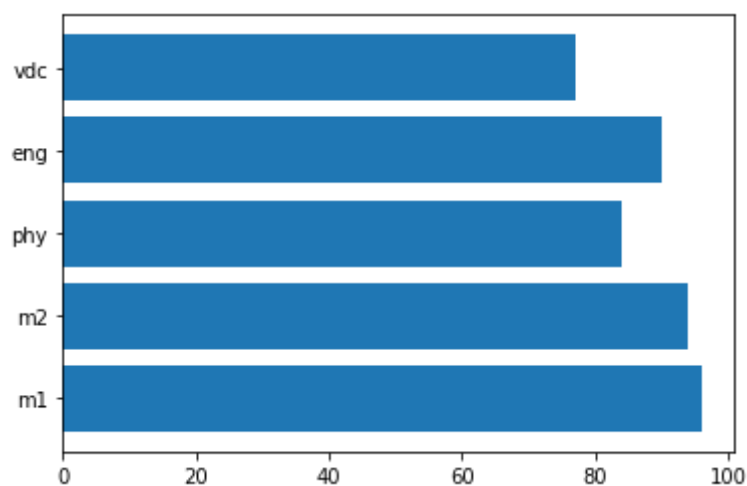
```



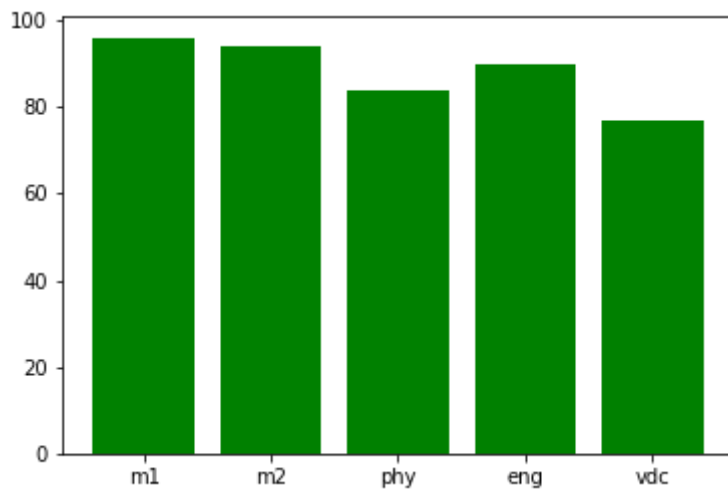
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array(['m1','m2','phy','eng','vdc'])
y=np.array([96,94,84,90,77])
plt.bar(x,y)
plt.show()
```



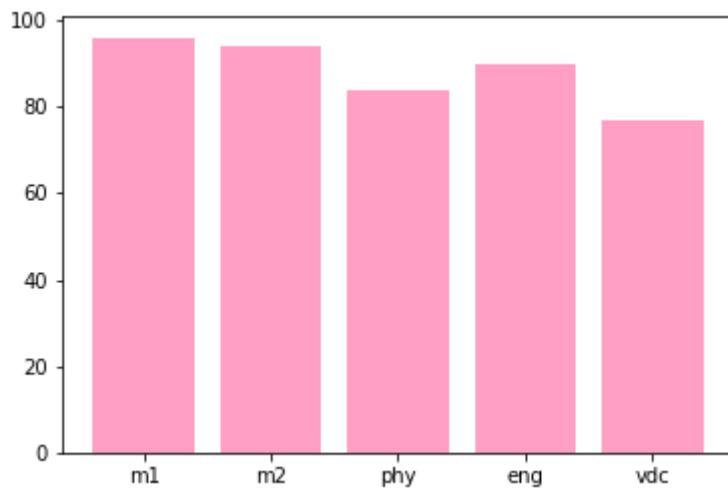
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array(['m1','m2','phy','eng','vdc'])
y=np.array([96,94,84,90,77])
plt.barh(x,y)
plt.show()
```



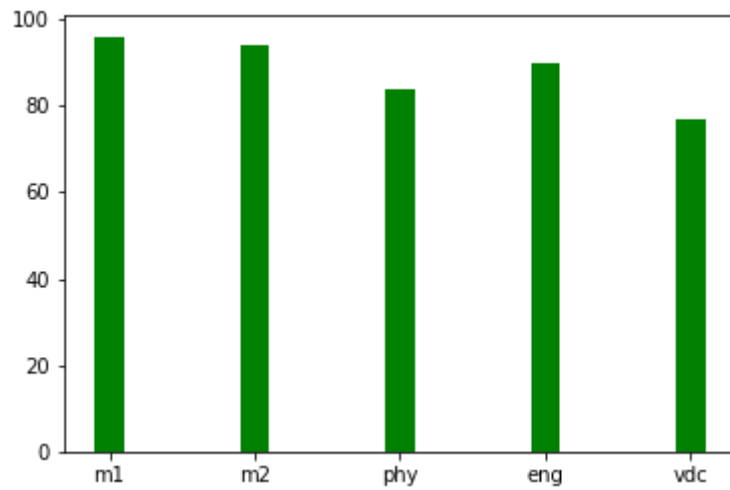
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array(['m1','m2','phy','eng','vdc'])
y=np.array([96,94,84,90,77])
plt.bar(x,y,color='green')
plt.show()
```



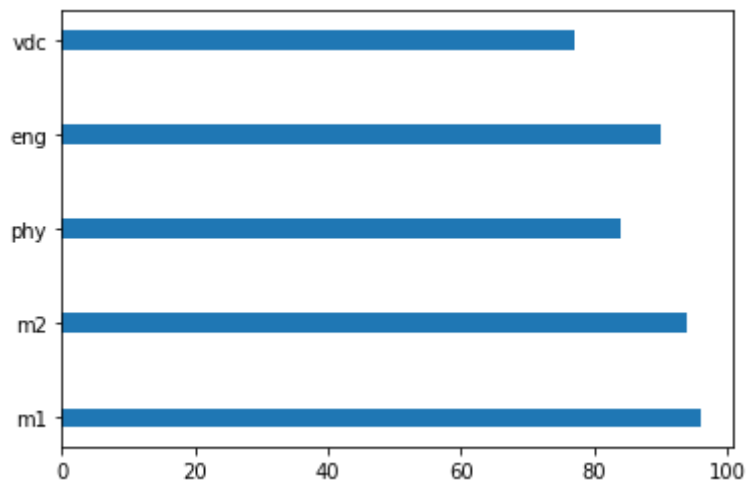
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array(['m1','m2','phy','eng','vdc'])
y=np.array([96,94,84,90,77])
plt.bar(x,y,color='#ff9fc5')
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array(['m1','m2','phy','eng','vdc'])
y=np.array([96,94,84,90,77])
plt.bar(x,y,color='green',width=0.2)
plt.show()
```



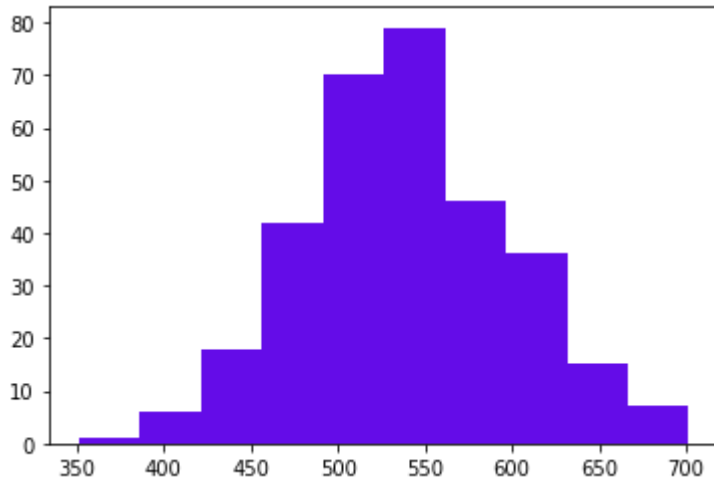
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array(['m1','m2','phy','eng','vdc'])
y=np.array([96,94,84,90,77])
plt.barh(x,y,height=0.2)
plt.show()
```



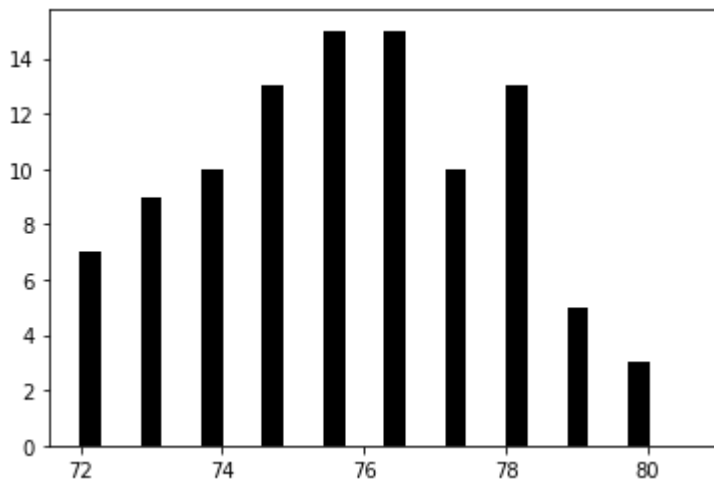
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array(['m1','m2','phy','eng','vdc'])
y=np.array([96,94,84,90,77])
plt.barh(x,y,color='red',height=0.2)
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.random.normal(540,60,320)
plt.hist(x,color='#640ce8')
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.random.normal(76,2,100)
plt.hist(x,color='black',width=0.3)
plt.show()
```

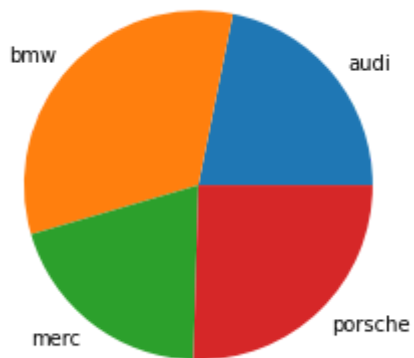


```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([24,36,22,28])
plt.pie(x)
plt.show()
```

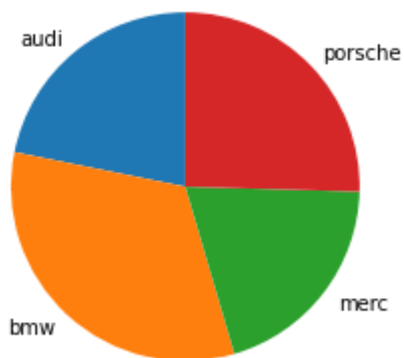




```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([24,36,22,28])
l=["audi","bmw","merc","porsche"]
plt.pie(x,labels=l)
plt.show()
```



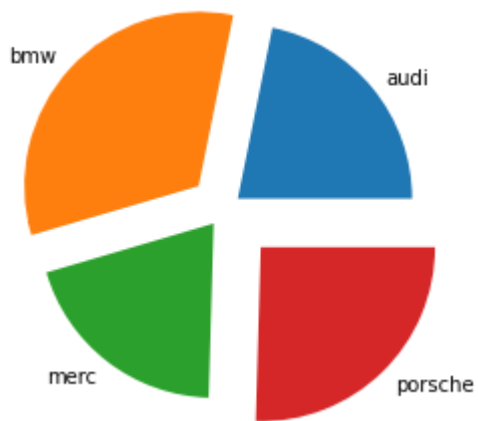
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([24,36,22,28])
l=["audi","bmw","merc","porsche"]
plt.pie(x,labels=l,startangle=90)
plt.show()
```



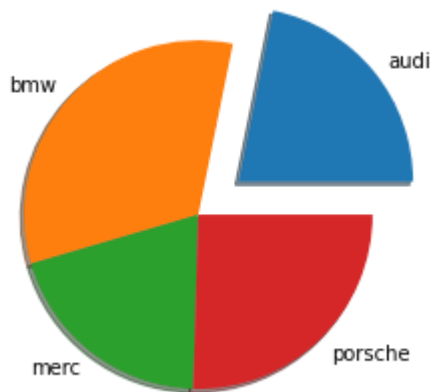
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([24,36,22,28])
l=["audi","bmw","merc","porsche"]
r=[0.1,0.2,0.1,0.2]
```



```
e=[0.1,0.2,0.1,0.3]
plt.pie(x,labels=l,explode=e)
plt.show()
```



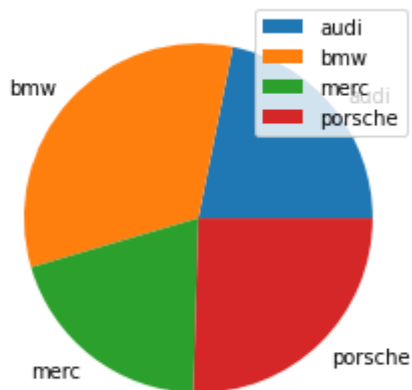
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([24,36,22,28])
l=["audi","bmw","merc","porsche"]
e=[0.3,0,0,0]
plt.pie(x,labels=l,explode=e,shadow=True)
plt.show()
```



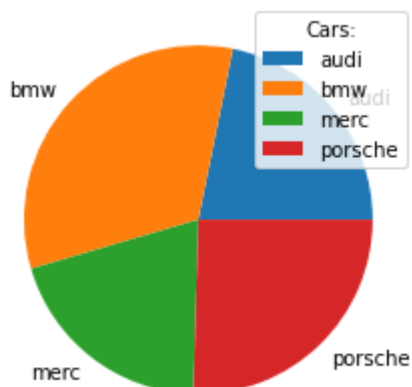
```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([24,36,22,28])
l=["audi","bmw","merc","porsche"]
col=["black","blue","c","hotpink"]
plt.pie(x,labels=l,colors=col)
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([24,36,22,28])
l=["audi","bmw","merc","porsche"]
plt.pie(x,labels=l)
plt.legend()
plt.show()
```

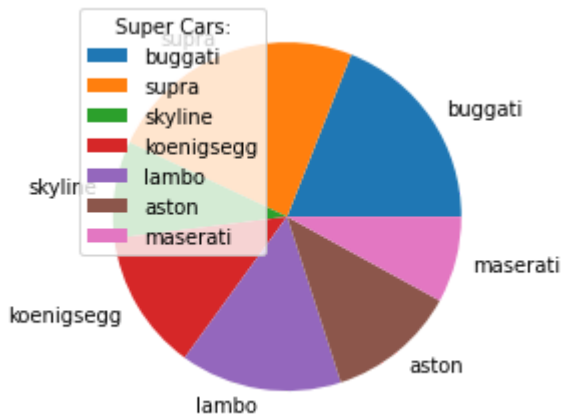


```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([24,36,22,28])
l=["audi","bmw","merc","porsche"]
plt.pie(x,labels=l)
plt.legend(title="Cars:")
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([19,24,9,13,15,12,8])
l=["buggati","supra","skyline","koenigsegg","lambo","aston","maserati"]
plt.pie(x,labels=l)
```

```
plt.legend(title="Super Cars:")
plt.show()
```



```
import matplotlib.pyplot as plt
import numpy as np
x=np.array([19,24,9,13,15,12,8])
l=["buggati","supra","skyline","koenigsegg","lambo","aston","maserati"]
c=["r","g","b","c","m","y","k"]
plt.pie(x,labels=l,colors=c,startangle=180)
plt.legend(title="Super Cars:")
plt.show()
```

