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Section B

1. Write a program to plot a bar chart in python to display the result of a school for five consecutive years.

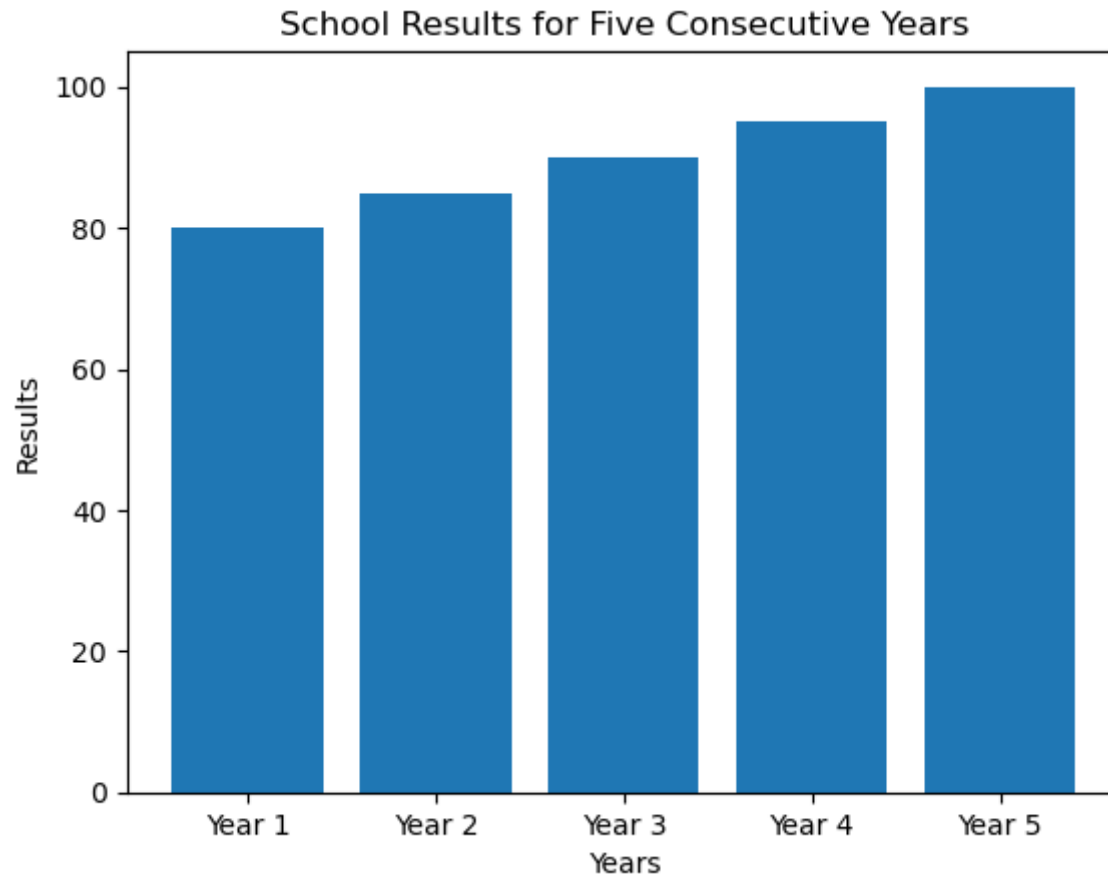
```
In [1]: import matplotlib.pyplot as plt

# Create the data
years = ['Year 1', 'Year 2', 'Year 3', 'Year 4', 'Year 5']
results = [80, 85, 90, 95, 100]

# Create the bar chart
plt.bar(years, results)

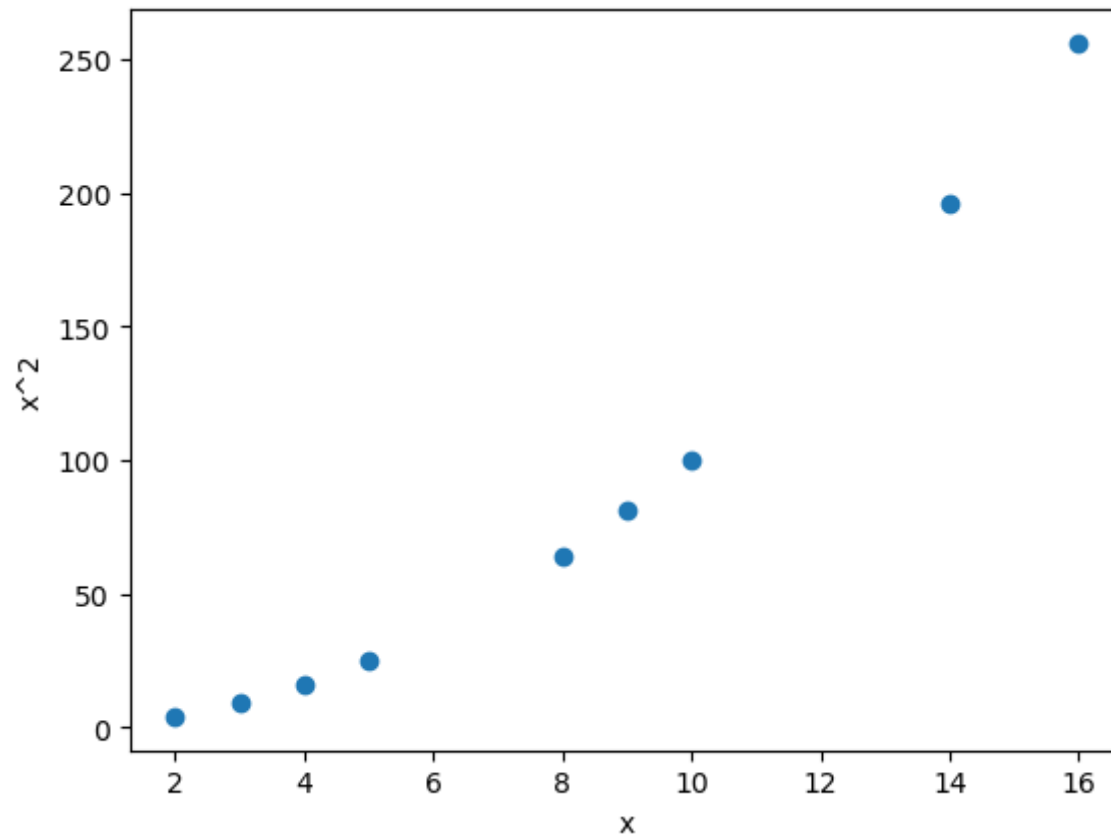
# Add labels and title
plt.xlabel('Years')
plt.ylabel('Results')
plt.title('School Results for Five Consecutive Years')

# Display the chart
plt.show()
```



2. Write a program in python to plot a graph for the function $y = x^2$

```
In [3]: import matplotlib.pyplot as plt
x=[2,3,4,5,16,14,8,9,10,11]
y=[None]*10
for i in range(len(x)-1):
    y[i]=x[i]**2
plt.scatter(x,y)
plt.xlabel("x")
plt.ylabel("x^2")
plt.show()
print(y)
```

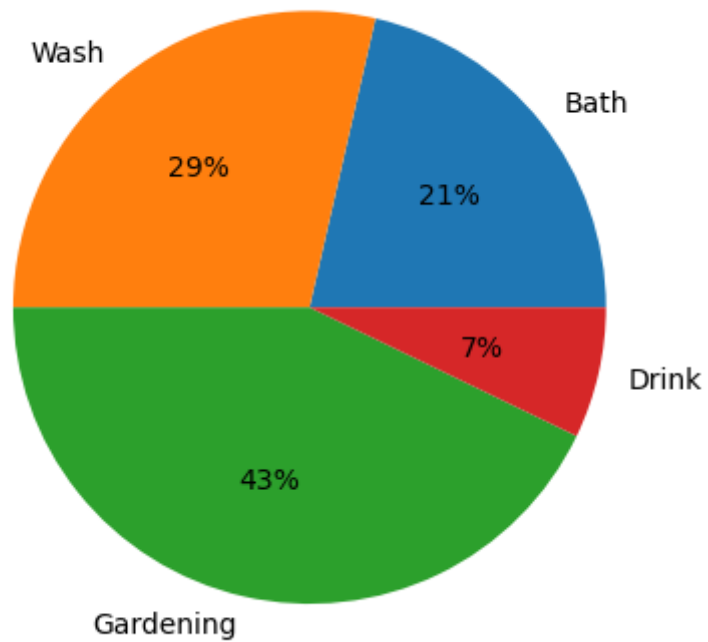


[4, 9, 16, 25, 256, 196, 64, 81, 100, None]

3. Write a program in python to plot a pie chart on consumption of water in daily life.

```
In [11]: import matplotlib.pyplot as plt
water_usage=[30,40,60,10]
work=['Bath','Wash','Gardening','Drink']
plt.pie(water_usage,labels=work, autopct='%.0f%%')
```

```
Out[11]: ([<matplotlib.patches.Wedge at 0x19a9c0b7e20>,  
  <matplotlib.patches.Wedge at 0x19a9c0c4520>,  
  <matplotlib.patches.Wedge at 0x19a9c0c4c40>,  
  <matplotlib.patches.Wedge at 0x19a9c0d33d0>],  
  [Text(0.8600146261281999, 0.6858387877960626, 'Bath'),  
   Text(-0.6858388280562522, 0.8600145940217683, 'Wash'),  
   Text(-0.2447729126007758, -1.0724207295912054, 'Gardening'),  
   Text(1.0724207353205284, -0.2447728874989573, 'Drink')],  
  [Text(0.4690988869790181, 0.37409388425239776, '21%'),  
   Text(-0.37409390621250116, 0.4690988869466419, '29%'),  
   Text(-0.13351249778224134, -0.5849567615952028, '43%'),  
   Text(0.5849567647202881, -0.13351248409034033, '7%')])
```



```
In [ ]:
```