In [35]:

```
#Q.7: To plot the graph of f(x)=x**2 and g(x)=x**3 in [-1,1]
```

In [2]:

```python
import matplotlib.pyplot as plt
```
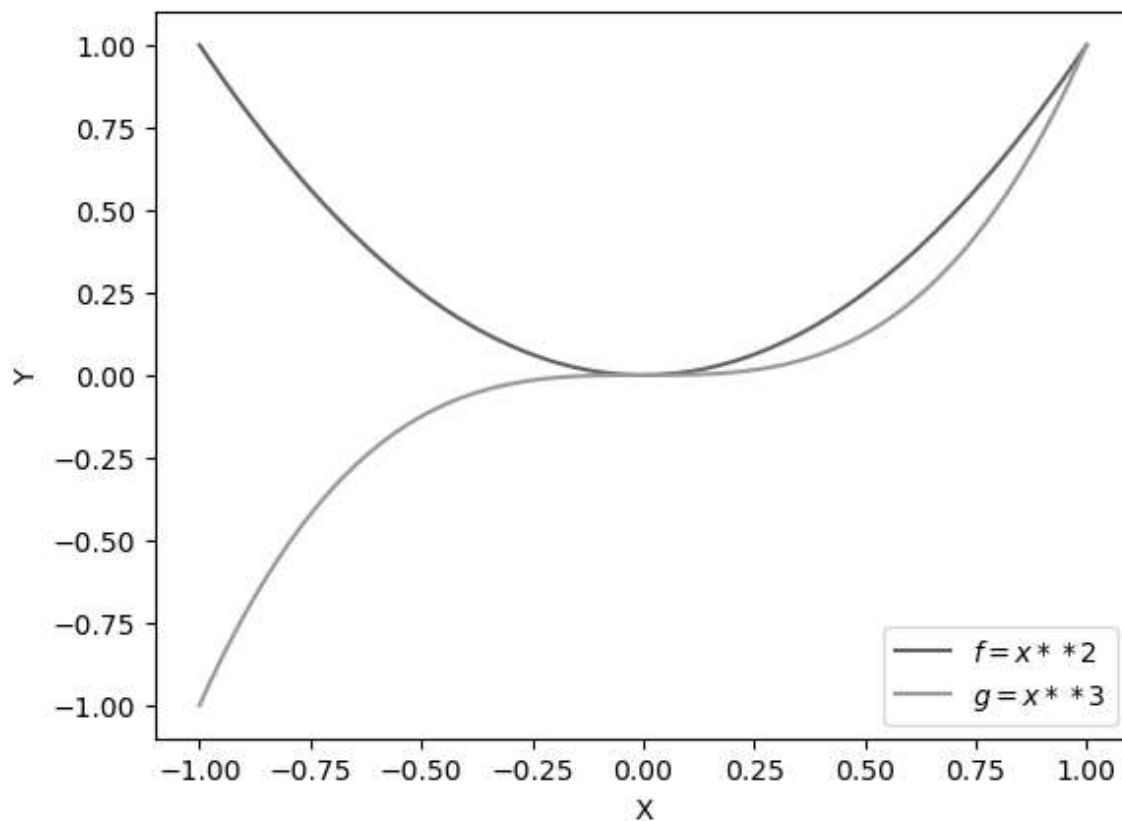
In [3]:

```python
import numpy as np
```

In [8]:

```python
x=np.linspace(-1,1,100)
f=x**2
g=x**3
plt.plot(x,f,label="$f=x**2$")
plt.plot(x,g,label="$g=x**3$")
plt.xlabel('X')
plt.ylabel('Y')
plt.legend()
plt.show()
```
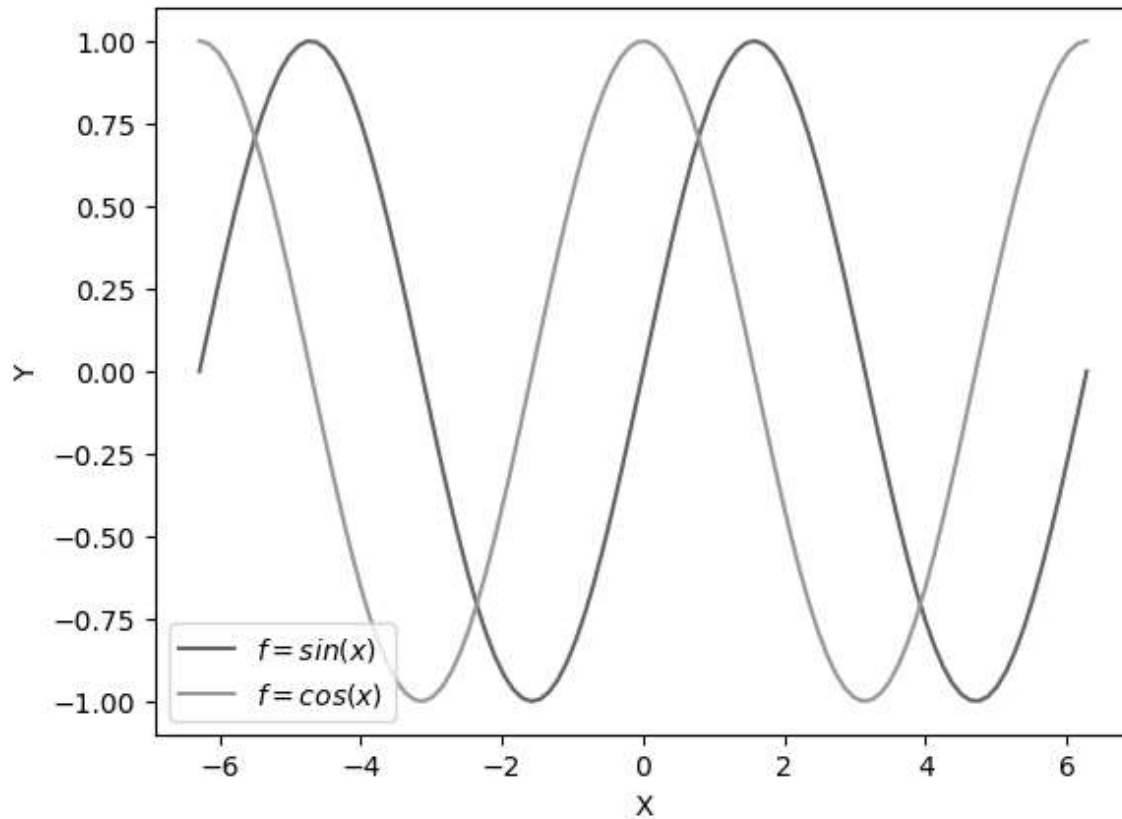

In [9]:

```
#Q. 8: PL ot the graph of f(x) —s in  (x)  and g(x) —cos (x)  in  [- 2pi , 2pi)
```

In [11]:

```
x=np.linspace(-2*np.pi,2*np.pi,100)
f=np.sin(x)
g=np.cos(x)
plt.plot(x,f,label="$f=sin(x)$")
plt.plot(x,g,label="$f=cos(x)$")
plt.xlabel('X')
plt.ylabel('Y')
plt.legend()
plt.show()
```
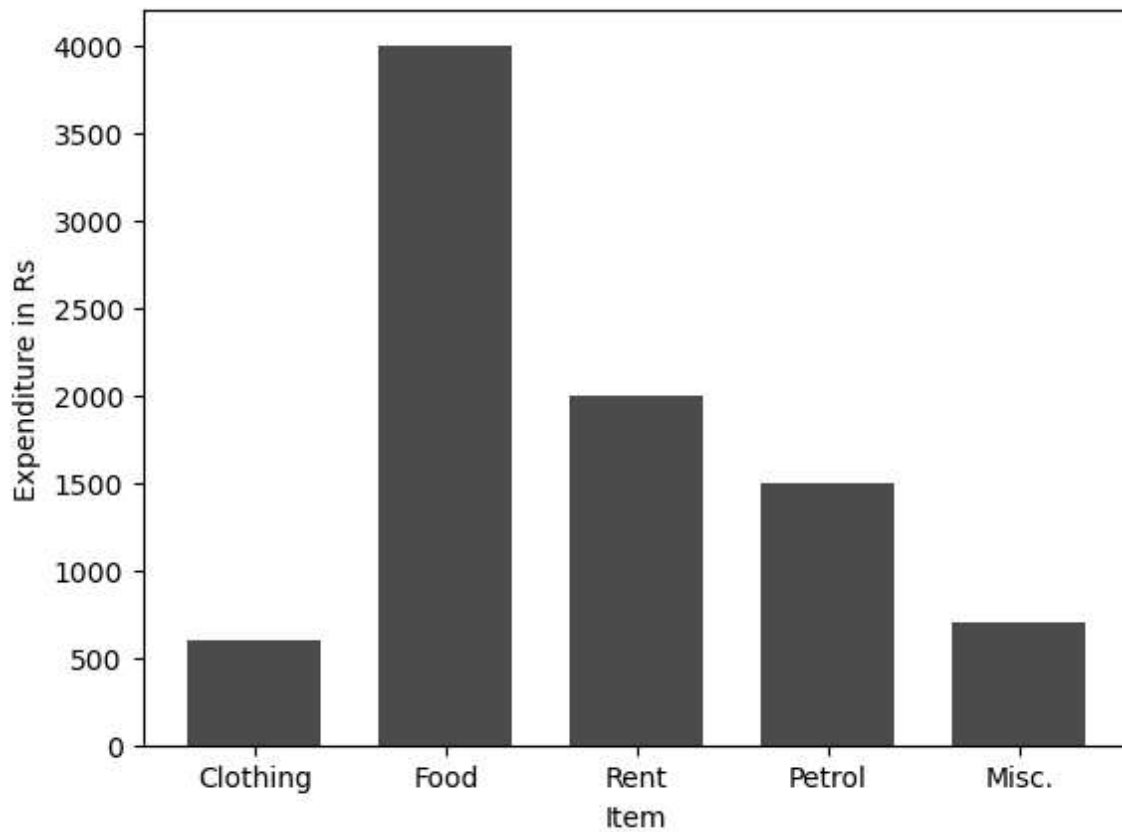

In [36]:

```
#Q9:Draw the bar graph of the following data
```

In [15]:

```
import matplotlib.pyplot as plt
```

In [18]:

```
left=[1,2,3,4,5]
height=[600,4000,2000,1500,700]
tick_label=['Clothing','Food','Rent','Petrol','Misc.']
plt.bar(left,height,tick_label=tick_label,width=0.7,color=['green'])
plt.xlabel('Item')
plt.ylabel('Expenditure in Rs')
plt.show()
```


In [37]:

```
#10: Draw the bar graph of the following data
```
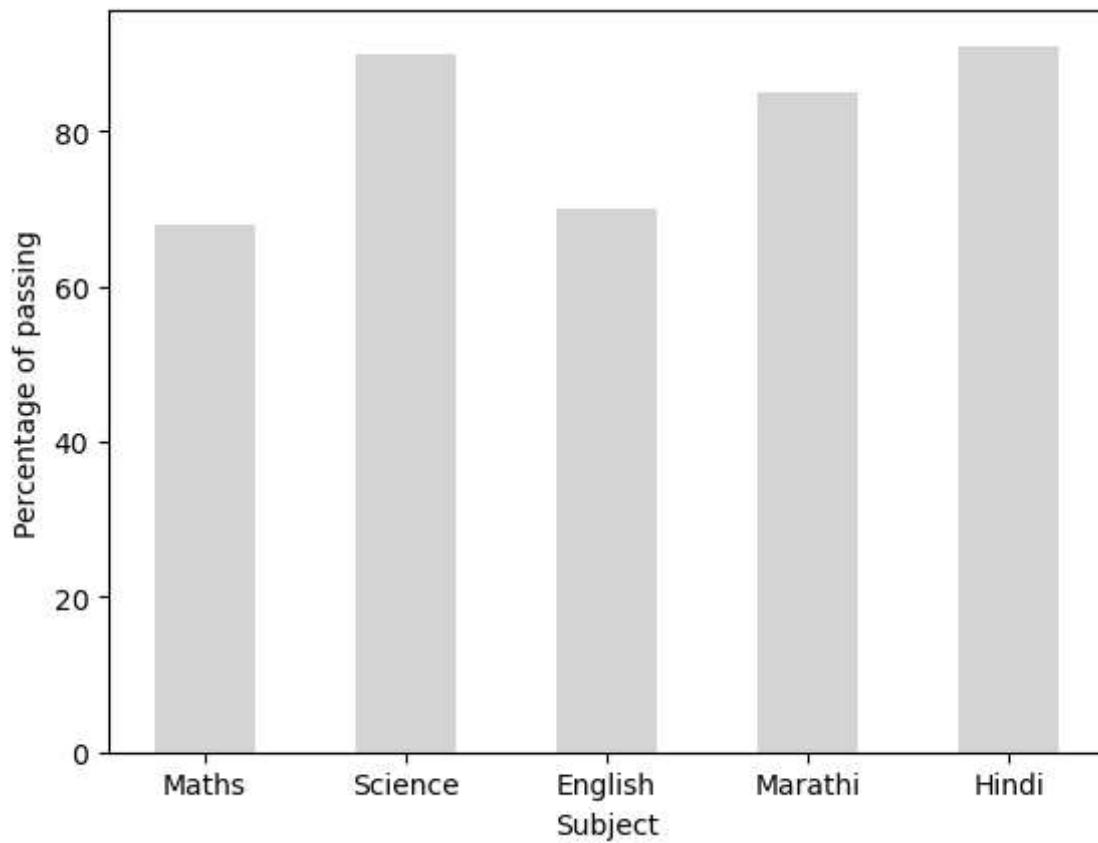
In [22]:

```
import matplotlib.pyplot as plt
```

In [23]:

```
import numpy as np
```

In [26]:

```
left=[1,2,3,4,5]
height=[68,90,70,85,91]
tick_label=['Maths','Science', 'English', 'Marathi', 'Hindi']
plt.bar(left,height,tick_label=tick_label,width=0.5,color=['pink'])
plt.xlabel('Subject')
plt.ylabel('Percentage of passing')
plt.show()
```
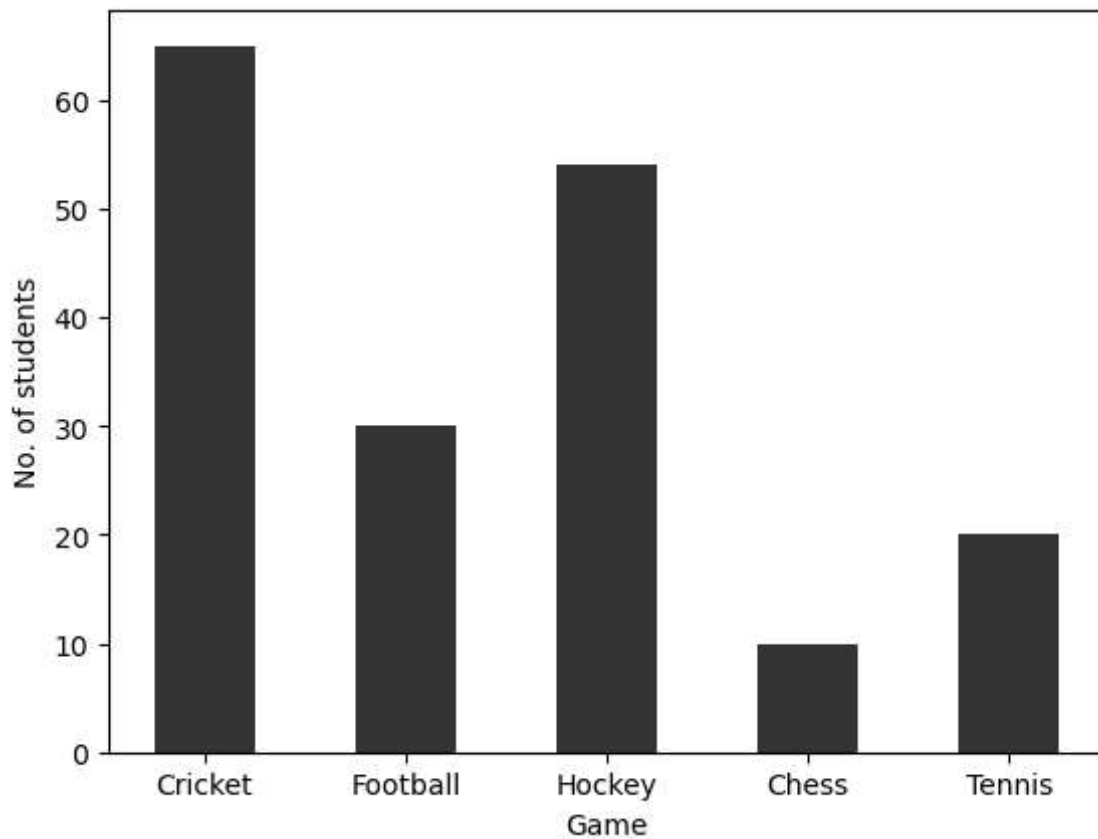

In [38]:

#11: Draw the bar graph of the following data

In [30]:

```python
left=[1,2,3,4,5]
height=[65,30,54,10,20]
tick_label=['Cricket','Football', 'Hockey', 'Chess','Tennis']
plt.bar(left,height,tick_label=tick_label,width=0.5,color=['purple'])
plt.xlabel('Game')
plt.ylabel('No. of students')
plt.show()
```


In [39]:

```python
#Q. 12: Draw the piechart on the given data
```
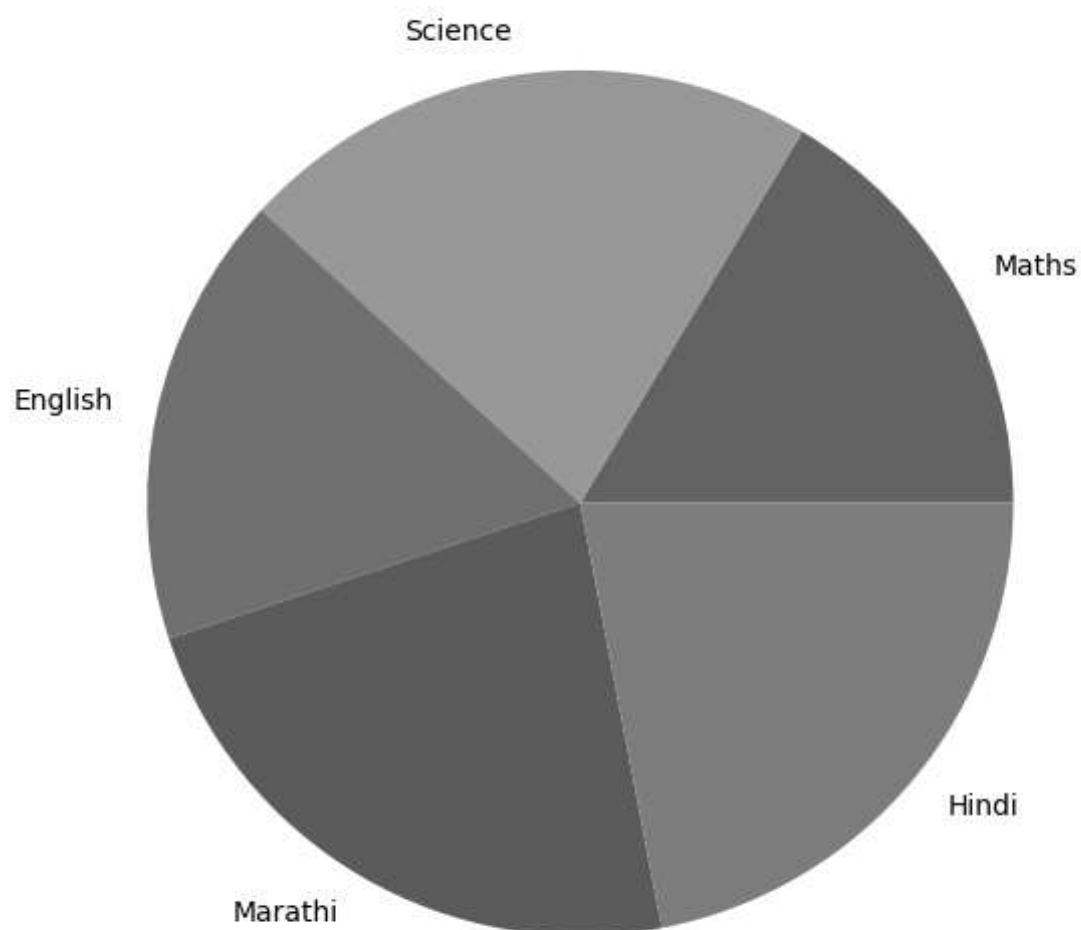
In [32]:

```python
import matplotlib.pyplot as plt
```

In [33]:

```python
import numpy as np
```

In [34]:

```
left=[1,2,3,4,5]
height=[68,90,70,95,91]
tick_label=['Maths','Science', 'English', 'Marathi', 'Hindi']
fig=plt.figure(figsize=(10,7))
plt.pie(height,labels=tick_label)
plt.show()
```


In [ ]: