```
import numpy as np
lst=[10,20,40]
array1=np.array(lst)
print("list = ",lst)
print("array =",array1)
type(lst)
type(array1)
```

```
list =  [10, 20, 40]
array = [10 20 40]
numpy.ndarray
```

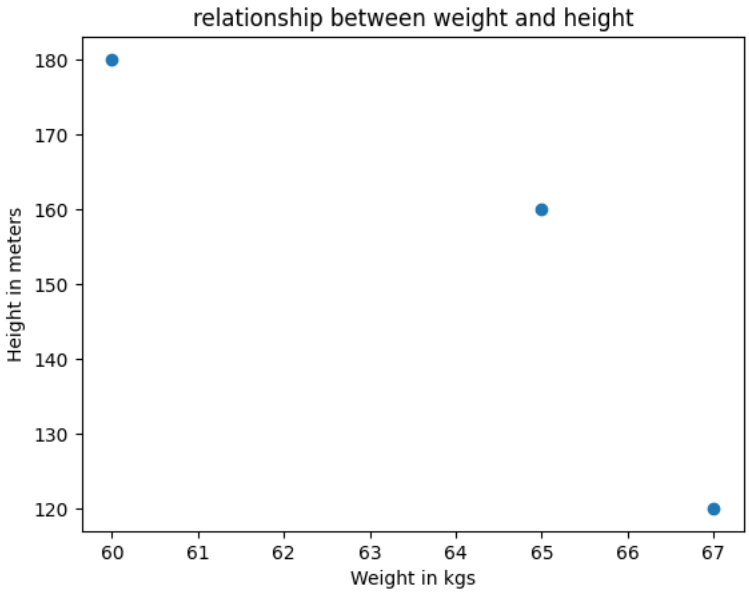
```
import numpy as np
array1=np.array([10,20,30])
array2=np.array([12,18,24])

print("array2 multiplied by array1: ",array1*array2)
print("array2 divided by array1: ",array2/array1)
print("array2 power offed by array1",array2**array1)
print("Addition of Two arrays: ",array1+array2)
```

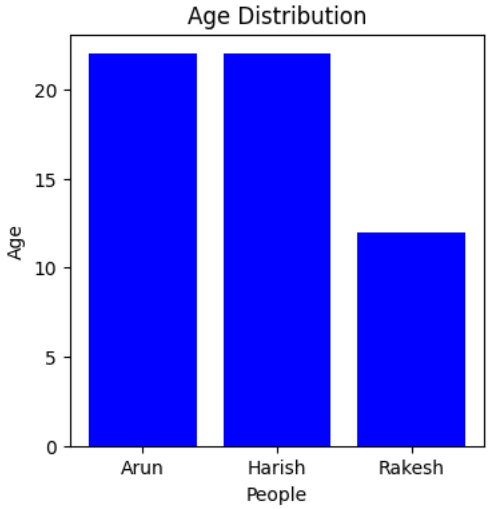
```
array2 multiplied by array1:  [120 360 720]
array2 divided by array1:  [1.2 0.9 0.8]
array2 power offed by array1 [        61917364224 4981704660114997248                   0]
Addition of Two arrays:  [22 38 54]
```

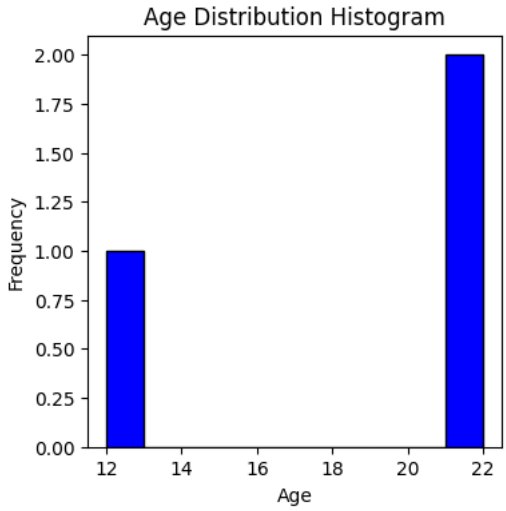
```
import numpy as np
array1=np.array([10,20,30])
print("sine:",np.sin(array1))
print("Natural algorithm: ",np.log(array1))
print("Base 10: ",np.log10(array1))
print("Base 2: ",np.log2(array1))
```

```
sine: [-0.54402111  0.91294525 -0.98803162]
Natural algorithm:  [2.30258509 2.99573227 3.40119738]
Base 10:  [1.         1.30103    1.47712125]
Base 2:  [3.32192809 4.32192809 4.9068906 ]
```

```
import matplotlib.pyplot as plt

people = ['Arun','Harish','Rakesh',]
age=[22,22,12]
weight=[65,67,60]
height=[160,120,180]

# scatter plot
plt.scatter(weight,height)
plt.title("relationship between weight and height")
plt.ylabel("Height in meters")
plt.xlabel("Weight in kgs")
plt.show()

# bar chart
plt.figure(figsize=(4, 4))
plt.bar(people, age, color='blue')
plt.xlabel('People')
plt.ylabel('Age')
plt.title('Age Distribution')
plt.show()

#Histogram
plt.figure(figsize=(4, 4))
plt.hist(age, bins=10, color='blue', edgecolor='black')
plt.xlabel('Age')
plt.ylabel('Frequency')
plt.title('Age Distribution Histogram')
plt.show()
```








```
import pandas as pd
a=pd.read_excel("dataset.xlsx")
a
```

	S.No	Name	Age	Weight	Height
0	1	Arun	21	65	172
1	2	Harish	19	55	168
2	3	JD	25	63	155
3	4	Hemanth	38	69	169
4	5	Rajesh	19	55	160

```
import pandas as pd
data2=pd.read_csv("dataset.csv")
data2
```

	S.No	Name	Age	Weight	Height
0	1	Arun	21	65	172
1	2	Harish	19	55	168
2	3	JD	25	63	155
3	4	Hemanth	38	69	169
4	5	Rajesh	19	55	160

```
import pandas as pd
data3=pd.read_table("notepad.txt")
data3
```

	S.No	Name	Age	Weight	Height
0	1	Arun	21	65	172
1	2	Harish	19	55	168
2	3	JD	25	63	155
3	4	Hemanth	38	69	169
4	5	Rajesh	19	55	160

```
import pandas as pd
url = "https://drive.google.com/file/d/1qSF5IZxb2keM2mBfYZud4krGNcfTM65x/view?usp=drive_link"
def_url=pd.read_csv("dataset.csv")
def_url
```

	S.No	Name	Age	Weight	Height
0	1	Arun	21	65	172
1	2	Harish	19	55	168
2	3	JD	25	63	155
3	4	Hemanth	38	69	169
4	5	Rajesh	19	55	160