1

```
name_list = ["jeff","jack","jim"]
name_in = input("What is you name?:")
def hello(name):
    if name.lower() in name_list:
        print("Hello, " + name.capitalize() + ". Good morning my
friend")
    else:
        print("Who are you?")
        print("Nice to meet you anyway ..." +
name.lower().capitalize() + " :).")

hello(name_in)
```

```
What is you name?JiM
Hello, Jim. Good morning my friend
```

```
What is you name?:Ken
Who are you?
Nice to meet you anyway ...Ken :).
```

2

```
week = int(input("How many hours did you work last week?"))
hour = int(input("What is your pay rate per hor(between 10-25)"))

def rate(week,hour):
    if week <= 40 :
        pay = week*hour
    elif week > 40:
        pay = 40 * hour
        pay += (week - 40) * 1.5 * hour
    return pay

print(rate(week,hour))
```

```
How many hours did you work last week?55
What is your pay rate per hor(between 10-25)12
750.0
```

3

```
num = int(input("Enter a number tp test:"))
flag = False
def is_prime(num):
  if num > 1:
    for i in range(2, num):
        if (num % i) == 0:
            flag = True
            break
if flag:
    print("This is not a prime number")
else:
    print("This is a prime number")

is_prime(num)
```

```
Enter a number tp test:17
This is a prime number
```

4

```
list = []

num = int(input("Enter number of elements :"))
def cta(num):
    for i in range  (0, num):
        ele = int(input())
        list.append(ele)
cta(num)
print("The entered" + str(list))
print("The maxium number emtered is " + str(max(list)))
print("The minimum number emtered is " + str(min(list)))
```

```
Enter number of elements :4
12
-58
3
1
The entered[12, -58, 3, 1]
The maxium number emtered is 12
The minimum number emtered is -58
```

5

```
import math
print("Please enter a choice for your selection")
print("Enter 1 if you want to calculate the area of a tringle.")
print("Enter 2 if you want to calculate the volumn of a cubluc.")
print("Enter 3 if you want to calculate the volumn of a cone.")

choice = int(input("Enter you choce here:"))
def triangle():
    length = float(input("Enter enter base length:"))
    height = float(input("Enter enter the height:"))
    print(f"The are of the triangle with base = {length} and height =
{height} is {0.5 * length * height}")
def cubic():
    width = int(input("Enter enter base width:"))
    length = int(input("Enter enter the length: "))
    height = int(input("Enter enter the height:"))
    print(f"The cubic volumn of width = {width} length = {length} and
height = {height} is  {width * height * length}")
def conic():
    diameter = int(input("Enter enter the diameter :"))
    height = int(input("Enter enter the height:"))
    print(f"The connical volumn of diameter = {diameter} and height =
{height} is {(22/7) * ((diameter / 2) ** 2) * (height / 3)}")


match choice:
    case 1:
        triangle()
    case 2:
        cubic()
    case 3:
        conic()
    case _:
        print("Invalid Choice")
```

```
Please enter a choice for your selection
Enter 1 if you want to calculate the area of a tringle.
Enter 2 if you want to calculate the volumn of a cubluc.
Enter 3 if you want to calculate the volumn of a cone.
Enter you choce here:1
Enter enter base length:12
Enter enter the height:8
The are of the triangle with base = 12.0 and height = 8.0 is 48.0
```

```
Please enter a choice for your selection
Enter 1 if you want to calculate the area of a tringle.
Enter 2 if you want to calculate the volumn of a cubluc.
Enter 3 if you want to calculate the volumn of a cone.
Enter you choce here:2
Enter enter base width:12
Enter enter the length: 8
Enter enter the height:9
The cubic volumn of width = 12 length = 8 and height = 9 is  864
```

```
Please enter a choice for your selection
Enter 1 if you want to calculate the area of a tringle.
Enter 2 if you want to calculate the volumn of a cubluc.
Enter 3 if you want to calculate the volumn of a cone.
Enter you choce here:3
Enter enter the diameter :15
Enter enter the height:12
The connical volumn of diameter = 15 and height = 12 is 707.1428571428571
```

```
Please enter a choice for your selection
Enter 1 if you want to calculate the area of a tringle.
Enter 2 if you want to calculate the volumn of a cubluc.
Enter 3 if you want to calculate the volumn of a cone.
Enter you choce here:5
Invalid Choice
```