Practical python basic assignment 6

1:

```
def fibonnaci_seq(n):

    if n==0:
        return 0
    elif n==1:
        return 1
    else:
        return fibonnaci_seq(n-1) + fibonnaci_seq(n-2)
```

2:

```
def factorial(n):

    if n == 1:
        return 1
    else:
        return n * factorial(n-1)
```

3:

```
weight = input('Enter your weight (in kg): ')
height = input('Enter your height (in cms): ')

if ('.' in weight) and ('.' not in height):

    weight = float(weight)
    height = int(height)
    height = height / 100

    BMI = (weight)/(height ** 2)

    print('BMI equals to: ',BMI)

elif ('.' in height) and ('.' not in weight):
    weight = int(weight)
    height = float(height)
    height = height/100

    BMI = (weight)/(height**2)

    print('BMI equals to: ',BMI)

else:
    if ('.' in weight) and ('.' in height):

        weight = float(weight)
        height = float(height)
        height = height/100

        BMI = (weight)/(height**2)
```

```
        print('BMI equals to: ',BMI)

    else:

        weight = int(weight)
        height = int(height)
        height = height/100

        BMI = (weight)/(height**2)

        print('BMI equals to: ',BMI)

if BMI < 18.5:
    print('Nutritional status is under weight')
elif (BMI >= 18.5) and (BMI <= 24.9):
    print('Nutritional status is normal weight')
elif (BMI >= 25.0) and (BMI <= 29.9):
    print('Nutritional status is pre-obesity')
elif (BMI >= 30.0) and (BMI <= 34.9):
    print('Nutritional status is obesity class1')
elif (BMI >= 35.0) and (BMI <= 39.9):
    print('Nutritional status is obesity class2')
else:
    print('Nutritional status is obesity class3')
```

4:

```
num = int(input('Enter any number: '))
```

```
print('The natural logarithm of ',num,'is: ',math.log(num))
```

5:

```
num = int(input('Enter any number for which you want sum: '))

l = []
for i in range(1,num+1):
    l.append(i**3)
print(sum(l))
```