

Q-1

```
num = int(input("Enter a number "))
sum = 0
```

```
for i in range(num+1):
    sum = sum + i
```

```
print(sum)
```

Q-2

```
num = int(input("Enter a number "))
sum = 0
```

```
for i in range (num**2):
    sum = sum + i
```

```
print(sum)
```

Q-3

```
num = int(input("Enter a number "))
sum = 0
```

```
for i in range (num**3):
    sum = sum + i
```

```
print(sum)
```

Q-4

```
num = int(input("Enter a number : "))
```

```
sum = 0
x=1
```

```
while x<=num:
    sum=sum+x
    x = x+2
```

```
print("Sum of odd number is ", sum)
```

Q-5

```
num = int(input("Enter a number "))
```

```
sum = 0
x = 2
```

```
while x<=num:
    sum=sum+x
    x = x+2
```

```
print("Sum of even number is ", sum)
```

Q-6

```

num = int(input("Enter a number: "))

factorial = 1

while num>0:
    factorial=factorial*num

    num = num-1

print("Factorial of the given number is: ")
print(factorial)

# Q-7

num = int(input("Enter a number "))

count = 0

while num>0:
    count=count+1

    num=num//10

print("The number of digits in the number are: ",count)

# Q-8

num = int(input("Enter a number "))
sum = 0

while num>0:
    dig = num%10
    sum = sum + dig
    num = num //10
print("The total sum of digits is: ",sum)

# Q-9

decimal = int(input("Enter a decimal number :"))
binary = 0
ctr = 0

temp = decimal

while(temp > 0):
    binary = ((temp%2)*(10**ctr)) + binary
    temp = int(temp/2)

    ctr = ctr+1

print("Binary of {x} is: {y}".format(x=decimal,y=binary))

# Q-10

octal = input("Enter a Octal number: ")
decimal = 0

```

```
l = len(octal)

for x in octal:
    l = l-1

    decimal += pow(8,l) * int(x)

print("Decimal of {p} is {q} ".format(p=octal, q=decimal))
```