In [1]:
```
#palindrome
n=int(input())
m=n
rev=0
while n>0:
    rem=n%10
    rev=rev*10+rem
    n=n/10
if m==rev:
    print("palindrome")
else:
    print("not palindrome")
```

```
not palindrome
```

In [2]:
```
#menu simple calucalator
print("Welcome to the Simple Calculator!")
print("1. Addition")
print("2. Subtraction")
print("3. Multiplication")
print("4. Division")
print("5. Modulus")
print("6. Power")
print("7. Exit")

while True:
    choice = input("Enter your choice (1-7): ")

    if choice == '7':
        print("Exiting the calculator. Goodbye!")
        break

    if choice in ('1', '2', '3', '4', '5', '6'):
        num1 = float(input("Enter first number: "))
        num2 = float(input("Enter second number: "))

        if choice == '1':
            print("Result:", num1 + num2)
        elif choice == '2':
            print("Result:", num1 - num2)
        elif choice == '3':
            print("Result:", num1 * num2)
        elif choice == '4':
            if num2 != 0:
                print("Result:", num1 / num2)
            else:
                print("Error! Division by zero.")
        elif choice == '5':
            if num2 != 0:
                print("Result:", num1 % num2)
            else:
                print("Error! Division by zero.")
        elif choice == '6':
            print("Result:", num1 ** num2)
    else:
        print("Invalid input! Please enter a number between 1 and 7.")
```

```
Welcome to the Simple Calculator!
1. Addition
2. Subtraction
3. Multiplication
4. Division
5. Modulus
6. Power
7. Exit
Result: 5.0
Exiting the calculator. Goodbye!
```

In [5]:
```
#number of factorial
n=int(input())
res=1
for i in range(1,n+1):
    res=res*i
print(res)
```

```
120
```

In [8]:
```
#reversing of number
n=int(input())
rev=0
while n!=0:
    rem=n%10
    rev=rev*10+rem
    n=n//10
print(rev)
```

```
57689
```

In [9]:
```
#prime number
x=int(input())
for i in range(2, x // 2):
    if x % i == 0:
        prime = False
        break


    if x%i==0:
            print("not prime")
else:
     print("prime")
```

```
prime
```

In [11]:
```
#list
try:
    list=[1,2,3,4,5,6,8,9,10]
    res=sum(list)
    print(res)
except TypeError:
    print("different type")
else:
    print("no error")
finally:
    print("code execution done")
```

```
48
no error
code execution done
```

In [13]:
```
sg={1:'veer',2:'ss',3:'swam'}
try:
    total=sum(sg)
    num=len(sg)
    average=total/num
    print(average)
except ZeroDivisionError:
    print("dictionary is empty")
else:
    print("no error")
finally:
    print("code execution done")
```

```
2.0
no error
code execution done
```

In [ ]: