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In [1]: #task1
name=input("Enter your name:")
age=int(input("Enter your age:"))
n=int(input("Enter a number:"))

time= 2019+(100-age)

for i in range(0,n,1):
    print("Hello", name, ", ", " you will be 100 years old in ", time,
```

Enter your name:Alexandra

Enter your age:19

Enter a number:5

Hello Alexandra , you will be 100 years old in 2100

Hello Alexandra , you will be 100 years old in 2100

Hello Alexandra , you will be 100 years old in 2100

Hello Alexandra , you will be 100 years old in 2100

Hello Alexandra , you will be 100 years old in 2100

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In [1]: #task2
n=int(input("Enter a number:"))

if (n%2==0):
    print(str(n)+" is even\n")
else:
    print(str(n)+" is odd\n")

a=int(input("Enter the divisible:"))
b=int(input("Enter the divisor:"))
if (a%b==0):
    print(str(a)+" is evenly divided by "+ str(b)+"\n")
else:
    print(str(a)+" is not evenly divided by "+ str(b)+"\n")
```

Enter a number:5  
5 is odd

Enter the divisible:70  
Enter the divisor:3  
70 is not evenly divided by 3

```
In [2]: #task3
a=int(input("Enter a number:"))
mas1 = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
mas2=[]
for i in range(0,len(mas1),1):
    if(mas1[i]<a):
        mas2.append(mas1[i])
for j in range(0,len(mas2),1):
    print(mas2[j],end=' ')
```

Enter a number:7  
1 1 2 3 5

```
In [3]: #task4
n=int(input("enter a number:"))
mas=[]
for i in range(1,n+1,1):
    if (n%i==0):
        mas.append(i)
print("The divisors are:",end=" ")
for j in range(0,len(mas),1):
    print(mas[j],end=" ")
```

enter a number:56  
The divisors are: 1 2 4 7 8 14 28 56

```
In [4]: #task5
import random
n1=random.randint(5,10)
n2=random.randint(7,12)
a=[random.randint(1,10) for i in range(n1)]
b=[random.randint(1,10) for i in range(n2)]

print("a=",end=" ")
for i in range(0,len(a),1):
    print(a[i],end=' ')
print()
print("b=",end=" ")
for i in range(0,len(b),1):
    print(b[i],end=' ')
print()

otv=[]
for elem in a:
    if((elem in b) and not( elem in otv)):
        otv.append(elem)
print("otv=",end=" ")
for i in range(0,len(otv),1):
    print(otv[i],end=' ')
```

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a= 10 2 1 7 9 3 7 7 3 6
b= 5 5 5 8 2 3 8 9 10
otv= 10 2 9 3
```

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In [1]: #task6
x=input("Enter a string:")
otv=1
for i in range(0,len(x)//2,1):
    if(x[i]!=x[len(x)-1-i]):
        otv=0
        break

if(otv==0):
    print(x,"is not a palindrome")
else:
    print(x,"is a palindrome")
```

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Enter a string:vov
vov is a palindrome
```

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In [3]: #task7
a = [1, 4, 9, 16, 25, 36, 49, 64, 81, 100]
b=[elem for elem in a if elem%2==0]
for i in range(0,len(b),1):
    print(b[i],end=' ')
```

4 16 36 64 100

```
In [1]: #task8
def compare(a,b):
    if (a=="rock"):
        if (b=="scissors"):
            print("the winner is 1: rock > scissors")
        else:
            print("the winner is 2: rock < paper")
    elif (a=="paper"):
        if (b=="scissors"):
            print("the winner is 2: paper < scissors")
        else:
            print("the winner is 1:paper > rock")
    elif (a=="scissors"):
        if (b=="rock"):
            print("the winner is 2: scissors < rock")
        else:
            print("the winner is 1: scissors >paper ")

def reada(i):
    a=input("First player round"+str(i)+" :")
    while not(a in mas):
        print("invalid input, try again");
        a=input("First player round"+str(i)+" :")
    return a

def readb(i):
    b=input("Second player round"+str(i)+" :")
    while not(b in mas):
        print("invalid input, try again");
        b=input("Second player round"+str(i)+" :")
    return b

i=1;
mas=[ "rock", "paper", "scissors"]

a=reada(i)
b=readb(i)
while(a==b):
    i=i+1
    a=reada(i)
    b=readb(i)

print("a= ",a,"; b= ",b)
compare(a,b)
```

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First player round1:rock
Second player round1:rod
invalid input, try again
Second player round1:rock
First player round2:rock
Second player round2:scissors
a= rock ; b= scissors
the winner is 1: rock > scissors

```

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In [1]: #task9
import random
a = random.randint(1,10)
i=1
tek=int(input(" Enter your guess:"))
while(tek != a):
    if (tek > a):
        print("Too big!")
    else:
        print("Too small!")
    i=i+1
    tek=int(input("Enter your guess:"))
print("Yes, my number was",a," , you used",i,"tries")

```

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Enter your guess:5
Too big!
Enter your guess:2
Too small!
Enter your guess:3
Too small!
Enter your guess:4
Yes, my number was 4 , you used 4 tries

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In [2]: #task13
def fibonacci(n):
    if (n==1 or n==2):
        return 1
    else:
        return fibonacci(n-1) + fibonacci(n-2)

n=int(input("Enter the amount of the fibonacci numbers you want: "))
otv=fibonacci(n)
print("The",n,"th fibonacci is",otv)

```

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Enter the amount of the fibonacci numbers you want: 7
The 7 th fibonacci is 13

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In [ ]:

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