# Task 18

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Question : Make basic calculator with operations +,-,*,/

Answer:

```
class calc():
    def sum(operand1,operand2):
        return operand1+operand2
    def difference(operand1,operand2):
        return operand1-operand2
    def multiply(operand1,operand2):
        return operand1*operand2
    def divide(operand1,operand2):
        return operand1/operand2

a=int(input("enter operand1 : "))
b=int(input("enter operand2 : "))
sign=input("enter operator :")

if sign=='+':
    print(calc.sum(a,b))
elif sign=='-':
    print(calc.difference(a,b))
elif sign=='*':
    print(calc.multiply(a,b))
elif sign=='/':
    print(calc.divide(a,b))
else: print("proper input required.")
```

Question : To determine whether the given number is prime or not?

Answer:

```
def checkprime(num):
    for i in range(2,int(num/2)+1):
        if num%i==0:
            return False
    return True

number=int(input("enter the number to be checked prime :"))
if number==1:
        print("nor prime nor composite.")
if checkprime(number)==True:
    print("prime number.")
```

```
else:
    print("composite number. ")
```

Question : Write a program to solve quadratic equation.

Answer:

```
import math

def Qsolve(a, b, c):
    d = math.sqrt(b**2 - 4*a*c)
    return [float((-b+d)/(2*a)),float((-b-d)/(2*a))]

a = int(input("coefficient of x^2: "))
b = int(input("coefficient of x: "))
c = int(input("constant: "))

print("roots of the given quadratic equation are:", Qsolve(a, b, c))
```

Question : find if string has a special character.

Answer :

```
import string

def has_special_character(s):
    special_characters = string.punctuation + string.whitespace

    for char in s:
        if char in special_characters:
            return True
    return False

str=input("enter the string to be checked : ")
if has_special_character(str) == True:
    print("it has special charachters.")
elif has_special_character(str)==False:
    print("it doesn't have special charachters.")
```