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Subject Teacher Santosh Dhamor Practical No. 6: Application to Coprime Numbers: Practical based on accepting two positive integers and checking whether they are co-prime or not.

#### Subject Teacher Santosh Dhamone

Assistant Professor in Mathematics Art's Commerce and Science College,Onde Tal:- Vikramgad, Dist:- Palghar

ssdhamone@acscollegeonde.ac.in
www.santoshdhamone.com

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## Description:

#### Coprime Numbers

Suppose a and b are two positive integers such that they are called co prime numbers if and only if they have 1 as their only common factor and thus HCF(a, b) = 1. In other words, Co-prime numbers are a set of numbers or integers which have only 1 as their common factor i.e. their highest common factor (HCF) will be 1. Co-prime numbers are also known as relatively prime or mutually prime numbers. It is important that there should be two numbers in order to form co-primes.



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#### Possibility Table:

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 [36]: W Python program to check Co-Prime Number
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       # Function to check Co-prime
       def are coprine(a,b):
            hcf = 1
            for i in range(1, a+1):
               if aXi==0 and bXi==0:
                   hof = 1
            return hof == 1
       # Reading two numbers
       first = int(input('Enter first number: '))
        second = int(input('Enter second number: '))
       if are coprime(first, second):
           print("%d and %d are CO-PRIME" %(first, second))
       else:
           print('%d and %d are NOT CO-PRIME' %(first, second))
```



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#### OutPut:

Enter first number: 2

Enter second number: 3
2 and 3 are CO-PRIME

3 and 144 are NOT CO-PRIME

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```
Python Code:
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                                                                                                       IT ID Python
   [38]: # Python program to check Co-Prime Number
         # Function to check Co-prime
         def are coprime(a,b):
             hof = 1
             for i in range(1, a+1):
                if aliene and blisse:
                    hof = i
            return hof == 1
         W Reading two numbers
         first = int(input('Enter first number: '))
         second = int(input('Enter second number: '))
         if are coprime(first, second):
            print('%d and %d are CO-PRINE' %(first, second))
         else:
             print('%d and %d are NOT CO-PRIME' X(first, second))
         Enter first number: 3
         Enter second number: 144
```

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### Python Code:

```
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                                                                                                          The III Python
  [40]: # Python program to check Co-Prime Number
        # Function to check Co-prime
        def are coprime(a,b):
            hof = I
            for i in range(1, a+1):
                if axi==0 and bxi==0:
                    hef - i
            return hof == 1
        # Reading two numbers
        first = int(input('Enter first number: '))
        second = int(input('Enter second number: '))
        if are coprime(first, second):
            print('%d and %d are CO-PRINE' %(first, second))
        else:
            print('%d and %d are NOT CO-PRIME' %(first, second))
        Enter first number: 179
        Enter second number: 2356
        179 and 2356 are CO-PRINE
```

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### Python Code:

```
Trusted
File Edit View Run Kernel Settings Help
H + X D D + # 0 # Code
                                                                                                        CT # Python
  [42]: # Python program to check Co-Prime Number
                                                                                                      《 自 个 少 占 早 首
        # Function to check Co-prime
        def are coprime(a,b):
            hef = 1
            for i in range(1, a+1):
                if alies and blisse:
                    hof = 1
            return hof == 1
        # Reading two numbers
        first = int(input('Enter first number: '))
        second = int(input('Enter second number: '))
        if are_coprime(first, second):
            print("%d and %d are CO-PRINE" %(first, second))
        olses
            print('%d and %d are NOT CO-PRIME' %(first, second))
        Enter first number: 25
        Enter second number: 425
        25 and 425 are NOT CO-PRIME
```