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<b>Started on</b>	Friday, 7 June 2024, 10:09 PM
<b>State</b>	Finished
<b>Completed on</b>	Friday, 7 June 2024, 10:34 PM
<b>Time taken</b>	24 mins 22 secs
<b>Marks</b>	5.00/5.00
<b>Grade</b>	<b>100.00</b> out of 100.00

## Question 1

Correct

Mark 1.00 out of 1.00

An e-commerce company plans to give their customers a special discount for Christmas.

They are planning to offer a flat discount. The discount value is calculated as the sum of all the prime digits in the total bill amount.

Write an algorithm to find the discount value for the given total bill amount.

Constraints

$1 \leq \text{orderValue} < 10^6$

Input

The input consists of an integer orderValue, representing the total bill amount.

Output

Print an integer representing the discount value for the given total bill amount.

Example Input

578

Output

12

**For example:**

Test	Result
print(christmasDiscount(578))	12

**Answer:** (penalty regime: 0 %)

Reset answer

```

1 def is_prime_digit(digit):
2     #Check if the digit is a prime number (2, 3, 5, or 7)
3     return digit in {'2', '3', '5', '7'}
4 def christmasDiscount(n):
5     # Convert the total bill amount to a string
6     orderValue_str=str(n)
7
8     discount=0
9
10    #Iterate through each digit of the total bill amount
11
12    for digit in orderValue_str:
13        #Check if the digit is a prime number
14        if is_prime_digit(digit):
15            discount+=int(digit)
16
17    return discount

```

	Test	Expected	Got	
✓	print(christmasDiscount(578))	12	12	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

## Question 2

Correct

Mark 1.00 out of 1.00

A number is considered to be ugly if its only prime factors are 2, 3 or 5.

[1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, ...] is the sequence of ugly numbers.

Task:

complete the function which takes a number n as input and checks if it's an ugly number.

return ugly if it is ugly, else return not ugly

Hint:

An ugly number U can be expressed as:  $U = 2^a * 3^b * 5^c$ , where a, b and c are nonnegative integers.

**For example:**

Test	Result
print(checkUgly(6))	ugly
print(checkUgly(21))	not ugly

**Answer:** (penalty regime: 0 %)

Reset answer

```

1 def checkUgly(n):
2     while n%2==0:
3         n//=2
4     while n%3==0:
5         n//=3
6     while n%5==0:
7         n//=5
8     return "ugly" if n == 1 else "not ugly"
9

```

	Test	Expected	Got	
✓	print(checkUgly(6))	ugly	ugly	✓
✓	print(checkUgly(21))	not ugly	not ugly	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

## Question 3

Correct

Mark 1.00 out of 1.00

Write a code to check whether product of digits at even places is divisible by sum of digits at odd place of a positive integer.

Input Format:

Take an input integer from stdin.

Output Format:

Print TRUE or FALSE.

Example Input:

1256

Output:

TRUE

Example Input:

1595

Output:

FALSE

**For example:**

Test	Result
print(productDigits(1256))	True
print(productDigits(1595))	False

**Answer:** (penalty regime: 0 %)

Reset answer

```
1 def productDigits(n):
2     s=str(n)
3     l=len(s)
4     e=1
5     o=0
6     for i in range(l):
7         if ((i+1)%2==0):
8             e*=int(s[i])
9         else:
10            o+=int(s[i])
11    #print(e%o==0)
12    return e%o==0
13
```

	Test	Expected	Got	
✓	print(productDigits(1256))	True	True	✓
✓	print(productDigits(1595))	False	False	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

## Question 4

Correct

Mark 1.00 out of 1.00

Given a number with maximum of 100 digits as input, find the difference between the sum of odd and even position digits.

Input Format:

Take a number in the form of String from stdin.

Output Format:

Print the difference between sum of even and odd digits

Example input:

1453

Output:

1

Explanation:

Here, sum of even digits is  $4 + 3 = 7$

sum of odd digits is  $1 + 5 = 6$ .

Difference is 1.

Note that we are always taking absolute difference

**Answer:** (penalty regime: 0 %)

Reset answer

```

1 def differenceSum(n):
2     n=str(n)
3     a=0
4     b=0
5     for i, digit in enumerate(n):
6         if i%2==0:
7             a=a+int(digit)
8         else:
9             b=b+int(digit)
10    return (abs(a-b))
11

```

	Test	Expected	Got	
✓	print(differenceSum(1453))	1	1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

## Question 5

Correct

Mark 1.00 out of 1.00

An automorphic number is a number whose square ends with the number itself.

For example, 5 is an automorphic number because  $5 \times 5 = 25$ . The last digit is 5 which same as the given number.

If the number is not valid, it should display "Invalid input".

If it is an automorphic number display "Automorphic" else display "Not Automorphic".

Input Format:

Take a Integer from Stdin Output Format: Print Automorphic if given number is Automorphic number,otherwise Not Automorphic Example input: 5 Output: Automorphic Example input: 25 Output: Automorphic Example input: 7 Output: Not Automorphic

**For example:**

Test	Result
print(automorphic(5))	Automorphic

**Answer:** (penalty regime: 0 %)

Reset answer

```

1 def automorphic(n):
2     c=len(str(n))
3     r=(n**2)%(10**c)
4     if(r==n):
5         return 'Automorphic'
6     else:
7         return 'Not Automorphic'
8

```

	Test	Expected	Got	
✓	print(automorphic(5))	Automorphic	Automorphic	✓
✓	print(automorphic(7))	Not Automorphic	Not Automorphic	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.



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