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Started on	Wednesday, 19 June 2024, 9:45 PM
State	Finished
Completed on	Wednesday, 19 June 2024, 9:55 PM
Time taken	9 mins 21 secs
Marks	0.00/5.00
Grade	0.00 out of 100.00

Question 1

Not answered

Mark 0.00 out of 1.00

An abundant number is a number for which the sum of its proper divisors is greater than the number itself. Proper divisors of the number are those that are strictly lesser than the number.

Input Format:

Take input an integer from stdin

Output Format:

Return Yes if given number is Abundant. Otherwise, print No

Example input:

12

Output:

Yes

Explanation

The proper divisors of 12 are: 1, 2, 3, 4, 6, whose sum is $1 + 2 + 3 + 4 + 6 = 16$. Since sum of proper divisors is greater than the given number, 12 is an abundant number.

Example input:

13

Output:

No

Explanation

The proper divisors of 13 is: 1, whose sum is 1. Since sum of proper divisors is not greater than the given number, 13 is not an abundant number.

For example:

Test	Result
<code>print(abundant(12))</code>	Yes
<code>print(abundant(13))</code>	No

Answer: (penalty regime: 0 %)

Reset answer

```
1 def abundant(n):  
2
```

Question **2**

Not answered

Mark 0.00 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
<code>print(checkUgly(6))</code>	ugly
<code>print(checkUgly(21))</code>	not ugly

Answer: (penalty regime: 0 %)

Reset answer

```
1 | def checkUgly(n):  
2 |
```

Question **3**

Not answered

Mark 0.00 out of 1.00

complete function to implement coin change making problem i.e. finding the minimum number of coins of certain denominations that add up to given amount of money.

The only available coins are of values 1, 2, 3, 4

Input Format:

Integer input from stdin.

Output Format:

return the minimum number of coins required to meet the given target.

Example Input:

16

Output:

4

Explanation:

We need only 4 coins of value 4 each

Example Input:

25

Output:

7

Explanation:

We need 6 coins of 4 value, and 1 coin of 1 value

Answer: (penalty regime: 0 %)

Reset answer

```
1 | def coinChange(n):  
2 |
```

Question 4

Not answered

Mark 0.00 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  |
```

Question 5

Not answered

Mark 0.00 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 $5*5 = 25$. 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
<code>print(automorphic(5))</code>	Automorphic

Answer: (penalty regime: 0 %)

Reset answer

```
1 | def automorphic(n):  
2 |
```

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