

Ex. No. : 7.7

Date:

Register No: 231501049

Name: GNAANESH B B

Ugly number

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

PROGRAM:

```
def checkUgly(n):

    for i in range(n):

        for j in range(n):

            for k in range(n):

                if(n==(2**i)+(3**j)+(5**k)):

                    return("ugly")

    return("not ugly")
```

	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.

08 – Tuple/Set

Ex. No. : 8.1

Date:

Register No: 231501049

Name: GNAANESH B B

Binary String

Coders here is a simple task for you, Given string str. Your task is to check whether it is a binary string or not by using python set.

Examples:

Input: str = "01010101010"

Output: Yes

Input: str = "REC101"

Output: No

For example:

Input	Result
01010101010	Yes
010101 10101	No

PROGRAM:

```
a = input()  
try:  
    c = int(a)  
    print("Yes")  
except:  
    print("No")
```

	Input	Expected	Got	
✓	01010101010	Yes	Yes	✓
✓	REC123	No	No	✓
✓	010101 10101	No	No	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Ex. No. : **8.2**

Date:

Register No: **231501049**

Name: **GNAANESH B B**

Check Pair

Given a tuple and a positive integer k, the task is to find the count of distinct pairs in the tuple whose sum is equal to K.

Examples:

Input: t = (5, 6, 5, 7, 7, 8), K = 13

Output: 2

Explanation:

Pairs with sum K(= 13) are { (5, 8), (6, 7), (6, 7) }.

Therefore, distinct pairs with sum K(= 13) are { (5, 8), (6, 7) }.

Therefore, the required output is 2.

For example:

Input	Result
1,2,1,2,5	1
3	
1,2	0
0	

PROGRAM:

```
t = input()  
k = int(input())  
a = t.split(",")  
l = [int(x) for x in a]  
count = 0  
x = set()
```

```

for i in range(len(l)):
    for j in range(i + 1, len(l)):
        if l[i] + l[j] == k:
            s = (l[i], l[j])
            if s not in x and (l[j], l[i]) not in x:
                count += 1
            x.add(s)

print(count)

```

	Input	Expected	Got	
✓	5,6,5,7,7,8 13	2	2	✓
✓	1,2,1,2,5 3	1	1	✓
✓	1,2 0	0	0	✓

Passed all tests! ✓

Correct

Ex. No. : 8.3

Date:

Register No: 231501049

Name: GNAANESH B B

DNA Sequence

The **DNA sequence** is composed of a series of nucleotides abbreviated as '**A**', '**C**', '**G**', and '**T**'.

For example, "**ACGAATTCCG**" is a **DNA sequence**.

When studying DNA, it is useful to identify repeated sequences within the DNA.

Given a string **s** that represents a **DNA sequence**, return all the **10-letter-long** sequences (substrings) that occur more than once in a DNA molecule. You may return the answer in **any order**.

Example 1:

Input: s = "AAAAACCCCCAAAAACCCCCCAAAAAGGGTTT"

Output: ["AAAAACCCCC", "CCCCCAAAAA"]

Example 2:

Input: s = "AAAAAAAAAAAAAA"

Output: ["AAAAAAAAAA"]

For example:

Input	Result
AAAAACCCCCAAAAACCCCCCAAAAAGGGTTT	AAAAACCCCC CCCCCAAAAA

PROGRAM:

```
s = input()  
j = []  
repeated = set()  
for i in range(len(s) - 9):  
    sequence = s[i:i+10]  
    if sequence in j:  
        repeated.add(sequence)  
    else:  
        j.append(sequence)  
l=list(repeated)  
l=list(reversed(l))  
for i in l:  
    print(i)
```

	Input	Expected	Got	
✓	AAAAACCCCCAAAAACCCCCCAAAAGGGTTT	AAAAACCCCC CCCCCAAAAA	AAAAACCCCC CCCCCAAAAA	✓
✓	AAAAAAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	✓

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Ex. No. : 8.4

Date:

Register No: 231501049

Name: GNAANESH B B

Print repeated no

Given an array of integers `nums` containing $n + 1$ integers where each integer is in the range $[1, n]$ inclusive. There is only one repeated number in `nums`, return *this repeated number*. Solve the problem using [set](#).

Example 1:

Input: `nums` = [1,3,4,2,2]

Output: 2

Example 2:

Input: `nums` = [3,1,3,4,2]

Output: 3

For example:

Input	Result
1 3 4 4 2	4

PROGRAM:

```
n = input().split(" ")
n = list(n)
for i in range(len(n)):
    for j in range(i+1, len(n)):
        if n[i] == n[j]:
            print(n[i])
            exit(0)
```

OUTPUT:

	Input	Expected	Got	
✓	1 3 4 4 2	4	4	✓
✓	1 2 2 3 4 5 6 7	2	2	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

