Practice Problem Set 3

1. Write a C program that takes an integer *n* as input and print all odd numbers from 1 to n.
   Examples

Input
`10`
Output
`1 3 5 7 9`

2. Write a C program that takes an integer n as input and print first n odd positive integers.
   Examples

Input
`10`
Output
`1 3 5 7 9 11 13 15 17 19`

3. Write a C program that takes two integers a, b as inputs and print all multiples of 3 in range [a, b].
   Examples

Input
`10 21`
Output
`12 15 18 21`

4. Write a C program that takes two integers *x* and *n* as input and calculate x^n using loop.
   Examples

Input
`2 3`
Output
`8`

5. Write a C program that takes an integer *n* as input and calculates the summation of the following series for first n terms.

$$3^3 + 6^3 + 9^3 + \cdots + (3n)^3$$

   Examples

Input
`3`
Output
`972`

6. Write a C program that takes an integer *n* as input and calculate the summation of the following series for first n terms.

$$1.3 + 2.3 + 3.3 + \cdots + n.3$$

   Examples

Input
`3`
Output
`17`

7. Write a C program that takes an integer *n* as input and calculate the summation of the following series for first n terms.

$$1.3^1 + 2.3^2 + 3.3^3 + \cdots + n.3^n$$

   Examples

Input
`3`

Output
102

8. Write a C program that takes an integer *n* as input and calculate the summation of the following series for first n terms.

$$1.2.3 + 2.3.4 + \cdots + n.(n+1)(n+2)$$

Examples

Input
10
Output
4290

9. Write a C program to count the divisors of a number.

Examples

Input
18
Output
6

10. Write a C program to count the odd divisors of a number.

Examples

Input
18
Output
2

11. Write a C program to print the digits of a number using loop.

Examples

Input
1234
Output
4 3 2 1

12. Write a C program to reverse a number using loop.

Examples

Input
1234
Output
4321

13. Write a C program to check if a given number is an Armstrong number or not.

Hints: An Armstrong number is a number that is equal to the sum of cubes of its digits, e.g.

$$1634 = 1^4 + 6^4 + 3^4 + 4^4$$

Examples

Input	Input
1634	1234
Output	Output
Armstrong Number	Not an Armstrong Number