VITE&TC PDTY23 ITPRODUCT TRANSITION EXAM #1 (28/1/2023)

Problem Statement #45	Keshav has N Apples initially, Waman has M apples initially. Keshav gave 5 apples to Waman and after some time Keshav plucked 2 times Initial apples (N) he had from Tree. Return the total number of apples Keshav and Waman are left with
Problem Constraint	1 <= N <= 1000 1 <= M <= 1000
Example Input	50 30
Example Output	145 35

Problem Statement #46	A programmer for a music company is developing a program to determine and Return the highest level of certification for an album. The program needs to follow this table of thresholds for each certification level: **Minimum albums sold** — **Certification** 500000 — Gold 1000000 — Platinum 10000000 — Diamond Given the albums sold(N) as input, print the certification for the album.
Problem Constraint	1 <= N <= 10^9
Example Input	50
Example Output	None

Problem Statement #47	Take an integer N as input, print the corresponding pattern for N
Problem Constraint	2 <= **N** <= 100
Example Input	5
Example Output	*_____* // 8 spaces **_____** // 6 spaces ***____*** // 4 spaces ****__**** // 2 spaces ********** // 0 spaces

Problem Statement #48	Given an integer N as input, print the corresponding Hollow Inverted Half Pyramid pattern for N
Problem Constraint	1 <= **N** <= 100
Example Input	6
Example Output	****** * * * * * * ** *

Problem Statement #49	Given a number A. Print all perfect squares less than or equal to A Notes - Perfect squares are integers whose square root is an integer
Problem Constraint	$1 <= A <= 10^4$ You Are Not Allowed to Use Math.sqrt()
Example Input	100
Example Output	1 4 9 16 25 36 49 64 81 100

Problem Statement #50	Take T (number of Test cases) as input For each test case, take integer N as input, you have to tell whether it is a perfect number or not. A perfect number is a positive integer that is equal to the sum of its proper positive divisors (excluding the number itself). A positive proper divisor divides a number without leaving any remainder
Problem Constraint	$1 <= T <= 10$ $1 <= N <= 10^6$
Example Input	2 4 6
Example Output	NO YES

Problem Statement #51	Implement a program that takes two positive integers A and B in the input and Returns their LCM The Least Common Multiple or LCM of two numbers say A and B, is denoted as LCM (A,B). And the LCM is the smallest or least positive integer that is divisible by both A and B
Problem Constraint	1 <= A,B <= 200
Example Input	2 3
Example Output	6

Problem Statement #52	Take an integer A as input, determine and Return whether it is palindromic or not A palindrome integer is an integer X for which reverse(X) = X where reverse(X) is X with its digits reversed. For e.g., reverse(123) = 321. Note : There will be no zeros at the start of a number
Problem Constraint	1 <= A <= 10^6
Example Input	131
Example Output	Yes

Problem Statement #53	Madhav is fond of chocolates. He has initially A rupees and a single chocolate costs B rupees. But too many chocolates are not good for health, so Madhav will not buy more than C chocolates. Return the number of chocolates Madhav will buy with the money he has
Problem Constraint	1 <= A, B, C <= 10^6
Example Input	A = 10, B = 3 C = 4
Example Output	3

Problem Statement #54	Take an integer N as input, print the corresponding pattern for N
Problem Constraint	3 <= N <= 100
Example Input	5
Example Output	

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