VITE&TC PDTY23 ITPRODUCT

Problem Statement #35	Given an integer A, find the floor value of real number A / 200 **Floor value of a real number X is the greatest integer less than or equal to X**
Problem Constraint	$-10^8 <= A <= 10^8$
Example Input	A = -2113
Example Output	-11

Problem Statement #36	Given an integer A, find the ceil value of real number A / 200 **Ceil value of a real number X is the smallest integer value that is greater than or equal to X**
Problem Constraint	The only first line contains the integer N denoting the number of layers
Example Input	A = -2113
Example Output	-10

Problem Statement #37	Given the temperature of a day in Degrees Celsius, convert this given temperature from Celsius to Fahrenheit. Write a program to do so. Round the output up to 2 decimal places
Problem Constraint	Fahrenheit = ((9/5)*Celsius) + 32
Example Input	36.8
Example Output	98.24

Problem Statement #38	Given an integer A, find the rounded value of real number A / 200 **Rounded value of 2.4 = 2** **Rounded value of 2.5 = 3** **Rounded value of -2.4 = -2** **Rounded value of -2.5 = -3**
Problem Constraint	$-10^8 <= A <= 10^8$
Example Input	A = 7
Example Output	0

Problem Statement #39	Given three integers, A, B and C. You have to find the number of days it will take to reach zero cases of Corona in a city. A - Average cases recovered in a day of the corona B - Number of new cases of corona daily C - Current active cases of the corona Return the minimum number of days it will take to reach 0 active cases of Covid
Problem Constraint	1 <= B < A <= 5000 1 <= C <= 1000
Example Input	A = 4 B = 3 C = 2
Example Output	2

Problem Statement #40	You are given a positive integer A denoting the radius of a circle. You have to calculate the area of the Circle **Area of a circle having radius R is given by ($\pi * R^2$)** **Since, the answer can be a real number, you have to return the ceil value of the area. Ceil value of a real number X is the smallest integer that is greater than or equal to X**
Problem Constraint	1 <= A <= 1000
Example Input	A = 4
Example Output	51

Problem Statement #41	You will be given an integer N. You need to return the count of prime numbers less than or equal to N
Problem Constraint	0 <= N <= 10^3
Example Input	19
Example Output	8

Problem Statement #42	Given the height (A) and weight (B) of a person as input in centimetres and kilograms. Find the BMI of that person and the classification of the user based on their BMI. Print Underweight if BMI < 18.5 Print Normal weight if BMI lies in the range [18.5, 24.9] Print Overweight if BMI lies in the range (24.9, 29.9] Print Obese if BMI is greater than 29.9 If x is the weight in kilograms and y is the height in metres. Then, BMI is calculated as x/(y*y)
Problem Constraint	101 29
Example Input	Overweight 28.4

Problem Statement #43	Given a number A. Return square root of the number if it is perfect square otherwise return -1
Problem Constraint	$1 <= A <= 10^8$
Example Input	A = 1001
Example Output	-1
Explanation	1001 is not a perfect square

Problem Statement #44	Given two integers A and B. A represents the count of mangoes and B represent the count of slices of mangoes. Mango can be cut into three slices of mangoes. A glass of mango shake can be formed by two slices of mangoes. Find the maximum number of glasses of mango shakes you can make with A mangoes and B slices of mangoes initially.
Problem Constraint	0 <= A, B <= 10^8
Example Input	A = 7 B = 1
Example Output	11

Dr Shripad Bhatlawande
Professor and Head,
Dept of E&TC Engineering,
Vishwakarma Institute of Technology, Pune