import java.util.Scanner;

public class Task3 {

    public static void processInput() {

        Scanner scanner = new Scanner(System.in);

        try {

            // Prompt user for input

            System.out.print("Enter a number: ");

            double num = scanner.nextDouble();

            // Calculate reciprocal

            double reciprocal = 1 / num;

            System.out.println("The reciprocal of " + num + " is " + reciprocal);

        } catch (java.util.InputMismatchException e) {

            System.out.println("Invalid input! Please enter a valid number.");

        } catch (ArithmeticException e) {

            System.out.println("Division by zero is not allowed!");

        } catch (Exception e) {

            System.out.println("An unexpected error occurred: " + e.getMessage());

        } finally {

            scanner.close();

        }

    }

    public static void main(String[] args) {

        processInput();

    }

}