# GitHub地址

[Star-tears/sch\_javatask: Java课程的作业 (github.com)](https://github.com/Star-tears/sch_javatask)

# 程序清单

## 程序清单1-1

public class Welcome{
  
 public static void main(String[] args){
  
 System.out.println("Welcome to Java");
  
 }
  
}

## 程序清单1-2

public class WelcomeWithThreeMessages{
  
 public static void main(String[] args){
  
 System.out.println("Pregramming is fun!");
  
 System.out.println("Fundamentals First");
  
 System.out.println("Problem Driven");
  
 }
  
}

## 程序清单1-3

public class ComputeExpression {
  
 public static void main(String[] args) {
  
 System.out.print("(10.5 + 2 \* 3) / (45-3.5) = ");
  
 System.out.println((10.5 + 2 \* 3) / (45 - 3.5));
  
 }
  
}

## 程序清单1-4

public class ShowSyntaxErrors {
  
 public static main(String[] args){
  
 System.out.println("Welcome to Java);
  
 }
  
}

## 程序清单1-5

public class ShowRuntimeErrors {
  
 public static void main(String[] args) {
  
 System.out.println(1 / 0);
  
 }
  
}

## 程序清单1-6

public class ShowLogicErrors {
  
 public static void main(String[] args) {
  
 System.out.print("Celsius 35 is Fahreheit degree ");
  
 System.out.println((9 / 5) \* 35 + 32);
  
 }
  
}

## 程序清单2-1

public class ComputeArea {
  
 public static void main(String[] args) {
  
 double radius;
  
 double area;
  
 radius = 20;
  
 area = radius \* radius \* 3.14159;
  
 System.out.println("The area for the circle of radius " + radius + " is " + area);
  
 }
  
}

## 程序清单2-2

import java.util.Scanner;
  
  
public class ComputeAreaWithConsoleInput {
  
 public static void main(String[] args) {
  
 Scanner input = new Scanner(System.in);
  
 System.out.print("Enter a number for the radius: ");
  
 double radius = input.nextDouble();
  
 double area = radius \* radius \* 3.14159;
  
 System.out.println("The area for the circle of radius " + radius + " is " + area);
  
 }
  
}

## 程序清单2-3

import java.util.Scanner;
  
  
public class ComputeAverage {
  
 public static void main(String[] args) {
  
 // Create a Scanner object
  
 Scanner input = new Scanner(System.in);
  
  
 // Prompt the user to enter three numbers
  
 System.out.print("Enter three numbers: ");
  
 double number1 = input.nextDouble();
  
 double number2 = input.nextDouble();
  
 double number3 = input.nextDouble();
  
  
 // Compute average
  
 double average = (number1 + number2 + number3) / 3;
  
  
 // Display results
  
 System.out.println("The average of " + number1 + " " + number2 + " " + number3 + " is " + average);
  
 }
  
}

## 程序清单2-4

import java.util.Scanner;
  
  
public class ComputeAreaWithConstant {
  
 public static void main(String[] args) {
  
 final double PI = 3.14159;// Declare a constant
  
  
 // Create a Scanner object
  
 Scanner input = new Scanner(System.in);
  
  
 // Prompt the user to enter a radius
  
 System.out.print("Enter a number of radius: ");
  
 double radius = input.nextDouble();
  
  
 // Compute area
  
 double area = radius \* radius \* PI;
  
  
 // Display results
  
 System.out.println("The area for the circle of radius " + radius + " is " + area);
  
 }
  
}

## 程序清单2-5

import java.util.Scanner;
  
  
public class DisplayTime {
  
 public static void main(String[] args) {
  
 Scanner input = new Scanner(System.in);
  
 // Prompt the user for input
  
 System.out.print("Enter an integer for seconds: ");
  
 int seconds = input.nextInt();
  
  
 int minutes = seconds / 60;// Find minutes in seconds
  
 int remainingSeconds = seconds % 60;// seconds remaining
  
 System.out.println(seconds + " seconds is " + minutes + " minutes and " + remainingSeconds + " seconds");
  
 }
  
}

## 程序清单2-6

import java.util.Scanner;
  
  
public class FahrenheitToCelsius {
  
 public static void main(String[] args) {
  
 Scanner input = new Scanner(System.in);
  
  
 System.out.print("Enter a degree in Fahrenheit: ");
  
 double fahrenheit = input.nextDouble();
  
  
 //Convert Fahrenheit to Celsius
  
 double celsius = (5.0 / 9) \* (fahrenheit - 32);
  
 System.out.println("Fahrenheit "+fahrenheit+" is "+celsius+ " in Celsius");
  
 }
  
}

## 程序清单2-7

public class ShowCurrenrTime {
  
 public static void main(String[] args) {
  
 long totalMillis = System.currentTimeMillis();
  
 long totalSeconds = totalMillis / 1000;
  
 long currentSecond = totalSeconds % 60;
  
 long totalMinutes = totalSeconds / 60;
  
 long currentMinute = totalMinutes % 60;
  
 long totalHours = totalMinutes / 60;
  
 long currentHour = (totalHours + 8) % 24;
  
 System.out.println("Current time is " + currentHour + ":" + currentMinute + ":" + currentSecond + " GMT+8");
  
 }
  
}

## 程序清单2-8

import java.util.Scanner;
  
  
public class SalesTax {
  
 public static void main(String[] args) {
  
 Scanner input = new Scanner(System.in);
  
  
 System.out.print("Enter purchase amount: ");
  
 double purchaseAmount = input.nextDouble();
  
  
 double tax = purchaseAmount \* 0.06;
  
 System.out.println("Sales tax is $" + (int) (tax \* 100) / 100.0);
  
 }
  
}

## 程序清单2-9

import java.util.Scanner;
  
  
public class ComputeLoan {
  
 public static void main(String[] args) {
  
 Scanner input = new Scanner(System.in);
  
  
 System.out.print("Enter annual interest rate, e.g., 7.25: ");
  
 double annualInterestRate = input.nextDouble();
  
  
 double monthlyInterestRate = annualInterestRate / 1200;
  
  
 System.out.print("Enter number of years as an integer, e.g., 5: ");
  
 int numberOfYears = input.nextInt();
  
  
 System.out.print("Enter loan amount, e.g., 120000.95: ");
  
 double loanAmount = input.nextDouble();
  
  
 double monthlyPayment = loanAmount \* monthlyInterestRate
  
 / (1 - 1 / Math.pow(1 + monthlyInterestRate, numberOfYears \* 12));
  
 double totalPayment = monthlyPayment \* numberOfYears \* 12;
  
  
 System.out.println("The monthly payment is $" + (int) (monthlyPayment \* 100) / 100.0);
  
 System.out.println("The total payment is $" + (int) (totalPayment \* 100) / 100.0);
  
 }
  
}

## 程序清单2-10

import java.util.Scanner;
  
  
public class ComputeChange {
  
 public static void main(String[] args) {
  
 Scanner input = new Scanner(System.in);
  
  
 System.out.print("Enter an amount of double, for example 11.56: ");
  
 double amount = input.nextDouble();
  
  
 int remainingAmount = (int) (amount \* 100);
  
  
 int numberOfOneDollars = remainingAmount / 100;
  
 remainingAmount = remainingAmount % 100;
  
  
 int numberOfQuarters = remainingAmount / 25;
  
 remainingAmount = remainingAmount % 25;
  
  
 int numberOfDimes = remainingAmount / 10;
  
 remainingAmount = remainingAmount % 10;
  
  
 int numberOfNickels = remainingAmount / 5;
  
 remainingAmount = remainingAmount % 5;
  
  
 int numberOfPennies = remainingAmount;
  
  
 System.out.println("Your amount " + amount + " consists of");
  
 System.out.println(" " + numberOfOneDollars + " dollars");
  
 System.out.println(" " + numberOfQuarters + " quarters");
  
 System.out.println(" " + numberOfDimes + " dimes");
  
 System.out.println(" " + numberOfNickels + " nickels");
  
 System.out.println(" " + numberOfPennies + " pennies");
  
 }
  
}