3. **Body Mass Index**

import java.util.Scanner;

public class BMI{

public static void main(String []args){

Scanner scan = new Scanner(System.in);

double weight, height;

System.out.println("Input Weight (pounds)");

weight = scan.nextDouble();

System.out.println("Input Height (inches)");

height = scan.nextDouble();

double BMI = weight \* 703 / (height \* height);

if (BMI < 18.5)

{

System.out.println("You are underweight.");

}

else if ((18.5 < BMI) && (BMI < 25))

{

System.out.println("Your weight is optimal.");

}

else

{

System.out.println("You are overweight.");

}

}

}

6. **Time Calculator**

import java.util.Scanner;

public class Time\_Calculator{

public static void main(String []args){

Scanner scan = new Scanner(System.in);

int numberOfSeconds;

System.out.println("Input Number of Seconds");

numberOfSeconds = scan.nextInt();

if (numberOfSeconds >= 60)

{

int numberOfMinutes = numberOfSeconds / 60;

System.out.println("There are " + numberOfMinutes + " minutes in " + numberOfSeconds + " seconds.");

}

if (numberOfSeconds >= 3600)

{

int numberOfHours = numberOfSeconds / 3600;

System.out.println("There are " + numberOfHours + " hours in " + numberOfSeconds + " seconds.");

}

if (numberOfSeconds >= 86400)

{

int numberOfDays = numberOfSeconds / 86400;

System.out.println("There are " + numberOfDays + " days in " + numberOfSeconds + " seconds.");

}

}

}

7. **Sorted Names**

import java.util.Scanner;

public class Sorted\_Names{

public static void main(String []args){

Scanner scan = new Scanner(System.in);

String name1, name2, name3;

System.out.println("Input Name of Person 1");

name1 = scan.nextLine();

System.out.println("Input Name of Person 2");

name2 = scan.nextLine();

System.out.println("Input Name of Person 3");

name3 = scan.nextLine();

if (name1.compareToIgnoreCase(name2) > 0)

{

String tmp = name1;

name1 = name2;

name2 = tmp;

}

if (name1.compareToIgnoreCase(name3) > 0)

{

String tmp = name1;

name1 = name3;

name3 = tmp;

}

if (name2.compareToIgnoreCase(name3) > 0)

{

String tmp = name2;

name2 = name3;

name3 = tmp;

}

System.out.println(name1);

System.out.println(name2);

System.out.println(name3);

}

}

10. **Fat Gram Calculator**

import java.util.Scanner;

public class Fat\_Gram\_Calculator{

public static void main(String []args){

Scanner scan = new Scanner(System.in);

double calories, fat;

System.out.println("Input Calories.");

calories = scan.nextDouble();

System.out.println("Input Fat (g).");

fat = scan.nextDouble();

double fatCalories = fat \* 9;

if (fatCalories > calories)

{

System.out.println("Error. The input is invalid. The number of fat calories is greater than the total calories.");

}

else

{

double fatPercentage = 100 \* fatCalories / calories;

if (fatPercentage < 30)

{

System.out.println("The percentage of calories that comes from fat is " + fatPercentage + "%. This food is low fat!");

}

else

{

System.out.println("The percentage of calories that comes from fat is " + fatPercentage + "%.");

}

}

}

}

11. **Running the Race**

import java.util.Scanner;

public class Running\_The\_Race{

public static void main(String []args){

Scanner nameScan = new Scanner(System.in);

Scanner timeScan = new Scanner(System.in);

String name1, name2, name3;

double time1, time2, time3;

System.out.println("Input Name of Runner 1");

name1 = nameScan.nextLine();

System.out.println("Input Time of Runner 1 (minutes)");

time1 = timeScan.nextDouble();

System.out.println("Input Name of Runner 2");

name2 = nameScan.nextLine();

System.out.println("Input Time of Runner 2 (minutes)");

time2 = timeScan.nextDouble();

System.out.println("Input Name of Runner 3");

name3 = nameScan.nextLine();

System.out.println("Input Time of Runner 3 (minutes)");

time3 = timeScan.nextDouble();

if (time1 > time2)

{

String tempName = name1;

name1 = name2;

name2 = tempName;

double tempTime = time1;

time1 = time2;

time2 = tempTime;

}

if (time1 > time3)

{

String tempName = name1;

name1 = name3;

name3 = tempName;

double tempTime = time1;

time1 = time3;

time3 = tempTime;

}

if (time2 > time3)

{

String tempName = name2;

name2 = name3;

name3 = tempName;

double tempTime = time2;

time2 = time3;

time3 = tempTime;

}

System.out.println("Gold: " + name1 + " (" + time1 + ")");

System.out.println("Silver: " + name2 + " (" + time2 + ")");

System.out.println("Bronze: " + name3 + " (" + time3 + ")");

}

}