LEVEL 1: Practice

import java.util.Scanner;

public class Level1Practice {

public static void main(String[] args) {

// Question 1: Find Harry's age in 2024 if birth year is 2000.

System.out.println("Harry's age in 2024 is " + (2024 - 2000));

// Question 2: Find the average mark in PCM where marks are Maths = 94, Physics = 95, Chemistry = 96.

double maths = 94, physics = 95, chemistry = 96;

double avgPCM = (maths + physics + chemistry) / 3;

System.out.println("Sam's average mark in PCM is " + avgPCM);

// Question 3: Convert 10.8 kilometers to miles (1 km = 1.6 miles).

double km = 10.8;

double miles = km \* 1.6;

System.out.println("The distance " + km + " km in miles is " + miles);

// Question 4: Calculate profit and profit percentage for cost price INR 129 and selling price INR 191.

int costPrice = 129, sellingPrice = 191;

int profit = sellingPrice - costPrice;

double profitPercentage = (profit / (double) costPrice) \* 100;

System.out.println("The Cost Price is INR " + costPrice + " and Selling Price is INR " + sellingPrice);

System.out.println("The Profit is INR " + profit + " and the Profit Percentage is " + profitPercentage);

// Question 5: Divide 14 pens among 3 students equally and find remaining pens.

int totalPens = 14, students = 3;

int pensPerStudent = totalPens / students;

int remainingPens = totalPens % students;

System.out.println("The Pen Per Student is " + pensPerStudent + " and the remaining pen not distributed is " + remainingPens);

// Question 6: Calculate discounted fee for university fee INR 125000 with 10% discount.

int fee = 125000;

double discountPercent = 10;

double discount = (discountPercent / 100) \* fee;

double finalFee = fee - discount;

System.out.println("The discount amount is INR " + discount + " and final discounted fee is INR " + finalFee);

// Question 7: Compute the volume of Earth in km^3 and miles^3 (radius = 6378 km).

double radius = 6378;

double volumeKm3 = (4.0 / 3) \* Math.PI \* Math.pow(radius, 3);

double volumeMiles3 = volumeKm3 \* 0.2399;

System.out.println("The volume of earth in cubic kilometers is " + volumeKm3 + " and cubic miles is " + volumeMiles3);

// Question 8: Convert user input distance from km to miles.

Scanner scanner = new Scanner(System.in);

System.out.print("Enter distance in km: ");

double inputKm = scanner.nextDouble();

double totalMiles = inputKm \* 1.6;

System.out.println("The total miles is " + totalMiles + " mile for the given " + inputKm + " km");

// Question 9: Compute discounted student fee for user input fee and discount percentage.

System.out.print("Enter student fee: ");

int studentFee = scanner.nextInt();

System.out.print("Enter discount percentage: ");

double studentDiscountPercent = scanner.nextDouble();

double studentDiscount = (studentDiscountPercent / 100) \* studentFee;

double finalStudentFee = studentFee - studentDiscount;

System.out.println("The discount amount is INR " + studentDiscount + " and final discounted fee is INR " + finalStudentFee);

// Question 10: Convert user input height from cm to feet and inches.

System.out.print("Enter height in cm: ");

double heightCm = scanner.nextDouble();

double heightInches = heightCm / 2.54;

int heightFeet = (int) (heightInches / 12);

heightInches = heightInches % 12;

System.out.println("Your Height in cm is " + heightCm + " while in feet is " + heightFeet + " and inches is " + heightInches);

scanner.close();

}

}