```
// Problem 7: Compute the volume of Earth in km^3 and miles^3
class EarthVolume {
    public static void main(String[] args) {
        double radiusKm = 6378;
        double pi = Math.PI;
        double volumeKm3 = (4.0 / 3.0) * pi * Math.pow(radiusKm, 3);

        // 1 km = 0.621371 miles
        double radiusMiles = radiusKm * 0.621371;
        double volumeMiles3 = (4.0 / 3.0) * pi * Math.pow(radiusMiles, 3);

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

import java.util.Scanner;

// Problem 8: Convert distance in kilometers to miles (with user input)
class KmToMilesConverter {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print("Enter distance in kilometers: ");
        double km = input.nextDouble();

        double miles = km / 1.6; // Hint: 1 mile = 1.6 km means 1 km = 1/1.6 miles
```

```
        System.out.println("The total miles is " + miles + " mile for the given " + km + " km");
        input.close();
    }
}


import java.util.Scanner;

// Problem 9: Student fee and university discount (with user input)
class StudentFeeCalculator {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print("Enter student fee: ");
        double fee = input.nextDouble();

        System.out.print("Enter university discount percentage: ");
        double discountPercent = input.nextDouble();

        double discount = fee * (discountPercent / 100);
        double finalFee = fee - discount;

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

```
}

import java.util.Scanner;

// Problem 10: Convert height in centimeters to feet and inches
class HeightConverter {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print("Enter height in centimeters: ");
        double heightCm = input.nextDouble();

        // 1 inch = 2.54 cm
        double totalInches = heightCm / 2.54;

        // 1 foot = 12 inches
        int feet = (int) (totalInches / 12);
        double inches = totalInches % 12;

        System.out.println("Your Height in cm is " + heightCm + " while in feet is " + feet + " and inches is " + inches);
        input.close();
    }
}
```

```
import java.util.Scanner;

// Problem 11 (first one on page 6): Basic calculator
class BasicCalculator {
   public static void main(String[] args) {
      Scanner input = new Scanner(System.in);
      System.out.print("Enter first number: ");
      double number1 = input.nextDouble();

      System.out.print("Enter second number: ");
      double number2 = input.nextDouble();

      double addition = number1 + number2;
      double subtraction = number1 - number2;
      double multiplication = number1 * number2;
      double division = number1 / number2; // Handle division by zero if necessary in a real application

      System.out.println("The addition, subtraction, multiplication and division value of " + number1 + " and " + number2 + " is " +
                  addition + ", " + subtraction + ", " + multiplication + " and " + division);
      input.close();
   }
}
```


```
import java.util.Scanner;

// Problem 11 (first one on page 6): Basic calculator
```

```
class BasicCalculator {
   public static void main(String[] args) {
      Scanner input = new Scanner(System.in);
      System.out.print("Enter first number: ");
      double number1 = input.nextDouble();

      System.out.print("Enter second number: ");
      double number2 = input.nextDouble();

      double addition = number1 + number2;
      double subtraction = number1 - number2;
      double multiplication = number1 * number2;
      double division = number1 / number2; // Handle division by zero if necessary in a real application

      System.out.println("The addition, subtraction, multiplication and division value of " + number1 + " and " + number2 + " is " +
                  addition + ", " + subtraction + ", " + multiplication + " and " + division);
      input.close();
   }
}
```