Level 1 Practice Programs

1. Write a program to find the age of Harry if the birth year is 2000. Assume the Current Year is 2024

I/P => NONE

O/P => Harry's age in 2024 is 24

| class practice1 { public static void main (String[] args){ int age; int birth\_year=2000; int current\_year=2024; age=current\_year-birth\_year; System.out.println("Harry's age in 2024 is "+age);  }  } |
| --- |

1. Sam’s mark in Maths is 94, Physics is 95 and Chemistry is 96 out of 100. Find the average percent mark in PCM

I/P => NONE

O/P =>Sam's average mark in PCM is 95

| class practice2{ public static void main (String[] args){ int mat=94; int phy=95; int chem=96; int avg; avg=(mat+phy+chem)/3; System.out.println("Sam's average mark in PCM is "+avg);  }  } |
| --- |

1. Create a program to convert the distance of 10.8 kilometers to miles.

Hint: 1 km = 1.6 miles

I/P => NONE

O/P =>The distance 10.8km in miles is 17.28

| class practice3{ public static void main (String[] args){ float km=10.8f; float miles; miles=10.8f\*1.6f; System.out.println("The distance "+km+"km in miles is "+miles);  }  } |
| --- |

1. Create a program to calculate the profit and loss in number and percentage based on the cost price of INR 129 and the selling price of INR 191.

**Hint =>**

1. Use a single print statement to display multiline text and variables.
2. Profit = selling price - cost price
3. Profit Percentage = profit / cost price \* 100

**I/P =>** NONE

**O/P =>**

The Cost Price is INR 129.0 and Selling Price is INR 191.0

The Profit is INR 62.0 and the Profit Percentage is 48.062016

| class practice4{ public static void main (String[] args){ float costprice=129f; float sellingprice=191f; float profit=sellingprice-costprice; float ProfitPercentage = (profit/costprice)\*100f; System.out.println("The Cost Price is INR "+costprice+" and Selling Price is INR "+sellingprice+ "\nThe Profit is INR "+profit+" and the Profit Percentage is "+ProfitPercentage);  }  } |
| --- |

1. Suppose you have to divide 14 pens among 3 students equally. Write a program to find how many pens each student will get if the pens must be divided equally. Also, find the remaining non-distributed pens.

**Hint =>**

1. Use Modulus Operator (%) to find the reminder.
2. Use Division Operator to find the Quantity of pens

**I/P =>** NONE

**O/P =>** The Pen Per Student is 4 and the remaining pen not distributed is 2

| class practice5 {  public static void main(String[] args) { class Main {  public static void main(String[] args) {  int pen=14;  int person=3;  int reminder=14%3;  int quotient=14/3;  System.out.println("The Pen Per Student is "+quotient+" and the remaining pen not distributed is "+reminder);  }  }  }  } |
| --- |

1. The University is charging the student a fee of INR 125000 for the course. The University is willing to offer a discount of 10%. Write a program to find the discounted amount and discounted price the student will pay for the course.

**Hint =>**

1. Create a variable named fee and assign 125000 to it.
2. Create another variable discountPercent and assign 10 to it.
3. Compute discount and assign it to the discount variable.
4. Compute and print the fee you have to pay by subtracting the discount from the fee.

**O/P =>** The discount amount is INR \_\_\_ and final discounted fee is INR \_\_\_

class Practice6 {

public static void main(String[] args) {

int fee = 125000;

int discountPercent = 10;

double discount = (fee \* discountPercent) / 100.0;

double discountedPrice = fee - discount;

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

}

}

**Output:**The discount amount is INR 12500.0 and final discounted fee is INR 112500.0

1. Write a Program to compute the volume of Earth in km^3 and miles^3

**Hint =>** Volume of a Sphere is (4/3) \* pi \* r^3 and radius of earth is 6378 km

**O/P =>** The volume of earth in cubic kilometers is \_\_\_\_ and cubic miles is \_\_\_\_

class Prctice7 {

public static void main(String[] args) {

double radiusKm = 6378;

double volumeKm3 = (4.0/3.0)\*Math.PI\*Math.pow(radiusKm, 3);

double km3ToMi3 = 0.239913;

double volumeMi3 = volumeKm3\*km3ToMi3;

System.out.printf("The volume of Earth in cubic kilometers is %.2f and in cubic miles is %.2f\n", volumeKm3, volumeMi3);

}

}

**Output:**The volume of Earth in cubic kilometers is 1086781292542.89 and in cubic miles is 260732960237.84

1. Create a program to convert distance in kilometers to miles.

**Hint =>**

1. Create a variable km and assign type as double as in double km;
2. Create Scanner Object to take user input from Standard Input that is the Keyboard as in Scanner input = new Scanner(System.in);
3. Use Scanner Object to take user input for km as in km = input.nextInt();
4. Use 1 mile = 1.6 km formulae to calculate miles and show the output

**I/P =>** km

**O/P =>** The total miles is \_\_\_ mile for the given \_\_\_ km

import java.util.Scanner;

class Practice8{

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;

System.out.printf("The total miles is "+miles+"miles for the given "+km+"km\n");

input.close();

}

}

**Input:**36

**Output:**The total miles is 22.50 miles for the given 36.00 km

1. Write a new program similar to the program # 6 but take user input for Student Fee and University Discount

**Hint =>**

1. Create a variable named fee and take user input for fee.
2. Create another variable discountPercent and take user input.
3. Compute the discount and assign it to the discount variable.
4. Compute and print the fee you have to pay by subtracting the discount from the fee.

import java.util.Scanner;

class Practice9{

public static void main(String[] args) {

Scanner input = new Scanner(System.in);

System.out.println("Enter Fee amount:");

Double fee = input.nextDouble();

System.out.println("Enter Discount Percentage:");

Double discountPercent = input.nextDouble();

double discount = (fee \* discountPercent) / 100.0;

double discountedPrice = fee - discount;

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

}

}

**I/P =>**

Enter Fee amount:

475000

Enter Discount Percentage:

10

**O/P =>** The discount amount is INR 47500.0 and final discounted fee is INR 427500.0

1. Write a program that takes your height in centimeters and converts it into feet and inches

**Hint =>** 1 foot = 12 inches and 1 inch = 2.54 cm

**import java.util.Scanner;**

**class Practice10 {**

**public static void main(String[] args) {**

**Scanner input = new Scanner(System.in);**

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

**double cm= input.nextDouble();**

**double inches = cm/2.54;**

**double feet = inches/12;**

**System.out.printf("Your Height in cm is "+cm+" while in feet is "+feet+" and inches is "+inches);**

**input.close();**

**}**

**}**

**I/P =>** 180

**O/P =>** Your Height in cm is 180.0 while in feet is 5.905511811023622 and inches is 70.86614173228347