

Laboratory Exercises 5

Java Selection Statements: If Statement

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Score: _____

Write your answer on the space provided.

1. Write a program using if statement to convert car consumption from one unit to another. Offer the user the choice of either conversion, kpl to mpg or mpg to kpl.

The interface should be:

```
PREFERRED CONVERSION:
1. kpl to mpg
2. mpg to kpl
Enter your choice: 2
Enter miles per gallon value: mpg_value
The equivalent kilometres per litre is: kpl_value
```

Useful formula:

$$\text{mpg} = (\text{kpl} / 1.609) * 3.785$$

$$\text{kpl} = (\text{mpg} * 1.609) / 3.785$$

Maximum of 4 statements only.

```
1 import java.util.Scanner;
2 public class MyClass {
3     public static void main(String args[]) {
4
5
6         Scanner input=new Scanner (System.in);
7
8         System.out.print("PREFERRED CONVERSION: \n1. kpl to mpg \n2. mpg to kpl \nEnter your choice: ");
9         double A = input.nextInt();
10
11         if (A==1)
12         {
13
14             System.out.println("Enter kilometr per liter value: ");
15             double kpl = input.nextInt();
16             System.out.println("The equivalent kilometers per litre is: "+(kpl/1.609*3.785)+"mpg");
17
18         }
19
20         if (A==2)
21         {
22
23             System.out.print("Enter kilometr per liter value: ");
24             double mpg = input.nextInt();
25             System.out.println("The equivalent kilometers per litre is: "+(mpg*1.609/3.785)+" mpg");
26
27         }
28     }
29 }
30
31
32 }
```

JDK 11.0.4
Interactive

CommandLine Arguments

Execute

Result
compiled and executed in 11.474 sec(s)

```
PREFERRED CONVERSION:
1. kpl to mpg
2. mpg to kpl
Enter your choice: 2
Enter kilometr per liter value: 10
The equivalent kilometers per litre is: 4.250990752972259 mpg
```

- Write a program that will read any three distinct number and print them in increasing order.

Write your design output here:

```
THREE DISTICT NUMBERS:
Enter the value of first no.: 99
Enter the value of second no.: 150
Enter the value of third no.: 43
The three numbers arranged into: 43 99 150
```

Answer program:

```
eclipse-workspace - CPE 03/src/mypack/increasing_numbers.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
increasing_numbers.java x package-info.java increasing numbers
1 package mypack;
2 import java.util.Scanner;
3 public class increasing_numbers
4 {
5     public static void main(String args[]) {
6
7
8         Scanner input = new Scanner (System.in);
9
10        System.out.print("THREE DISTICT NUMBERS: \nEnter the value of first no.: ");
11        int A = input.nextInt();
12
13        System.out.print("Enter the value of second no.: ");
14        int B = input.nextInt();
15
16        System.out.print("Enter the value of third no.: ");
17        int C = input.nextInt();
18
19        if (A<B&&B<C)
20
21            System.out.println("The three numbers arranged into: "+A+" "+B+" "+C);
22        else if (A<C&&C<B)
23            System.out.println("The three numbers arranged into: "+A+" "+C+" "+B);
24        else if (B<A&&A<C)
25            System.out.println("The three numbers arranged into: "+B+" "+A+" "+C);
26        else if (B<C&&C<A)
27            System.out.println("The three numbers arranged into: "+B+" "+C+" "+A);
28        else if (C<A&&A<B)
29            System.out.println("The three numbers arranged into: "+C+" "+A+" "+B);
30        else if (C<B&&B<A)
31            System.out.println("The three numbers arranged into: "+C+" "+B+" "+A);
32    }
33 }
```

```
<terminated> increasing_numbers [Java Application] C:\Users\MyPC7\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.f
THREE DISTICT NUMBERS:
Enter the value of first no.: 99
Enter the value of second no.: 150
Enter the value of third no.: 43
The three numbers arranged into: 43 99 150
```

