

Lab 11

Method

Name-Surname.....Student No.....Section (LAB).....

Lab instruction

1. (conversions between miles to kilometers) Write a header file that contains the following two methods:

```
/*converts from miles to kilometers*/
public static double mileTokilometer(double mile)

/*converts form kilometers to mile */
public static double kilometerToMile(double kilometer)
```

The formula for the conversion is:

$$\text{Mile} = 1.609 * \text{kilometer}$$

Implement the header file and write a test program that invoke these method to display the following tables:

Miles	Kilometers	Kilometers	Miles
1.0	1.600	20.0	12.5
2.0	3.200	25.0	15.625
3.0	4.800	30.0	18.75
4.0	6.400	35.0	21.875
5.0	8.000	40.0	25.0
6.0	9.600	45.0	28.125
7.0	11.200	50.0	31.25
8.0	12.800	55.0	34.375
9.0	14.400	60.0	37.5
10.0	16.000	65.0	40.625

*****CHECK POINT #1*****

2. (Perfect number) Write the method that check weather a number is perfect number. A positive integer is called a perfect number if it equal to the sum of all of its positive divisors, excluding itself.

For example.

6 is perfect number because; $6 = 3+2+1$

28 is perfect number because; $28 = 14+7+4+2+1$

There are four perfect number less than 10000. Use the following header for the method.

```
public static Boolean isPerfect(int number)
```

*****CHECK POINT #2*****

3. (converting milliseconds to hour, minutes, and seconds.) Write a method that convert the number of second to hour:minute:second following header.

```
public static String convertMillis(long millis)
```

the method return a string as hours:minutes:seconds. For example.

```
Enter time in milliseconds: 1000000000
277:46:40
```

*****CHECK POINT #3*****

-----End of Lab-----