COMPUTER SCIENCE A
SECTION I
Time—60 minutes
Number of questions—4
Percent of total grade—40

Directions: SHOW ALL YOUR WORK. REMEMBER THAT PROGRAM SEGMENTS ARE TO BE WRITTEN IN JAVA.

Notes:

1. Write a Java program to return a random int number in a given range. (20 points)

   For example:

   ```
   Input the start of the range: 1
   Input the end of the range:10
   ```

   Expected Output :

   ```
   The random number is: 5
   ```

   (*the value is a int number in [1,10])

2. Write a Java program that accepts two integers from the user and then prints the sum, the difference, the product, the average, the distance (the difference between integer), the maximum (the larger of the two integers), the minimum (smaller of the two integers). (30 points)

   For example :

   ```
   Input 1st integer: 25
   Input 2nd integer: 5
   ```

   Expected Output :

   ```
   Sum of two integers: 30
   Difference of two integers: 20
   Product of two integers: 125
   Average of two integers: 15.00
   Distance of two integers: 20
   Max integer: 25
   Min integer: 5
   ```

3. Write a Java program to find the common elements between two arrays of integers. (Bonus 10 points)

For example:

```
public static void main(String[] args){
    int[] a = {1, 2, 3, 4, 12};
    int[] b = {10, 11, 12, 13 ,14};
    findCommon(a, b);
}
```

Expected Output :

```
Common element is: 12
```

END.