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Experiment 1

```java
public class myArray
{
    Run | Debug
    public static void main(String[]args)
    {
        int num = new int [4];
        num[0] = 5;
        num[1] = 12;
        num[2] = 7;
        num[3] = 30;
        System.out.println(num[0]);
        System.out.println(num[1]);
        System.out.println(num[2]);
        System.out.println(num[3]);
    }
}
```

```
D:\hiya kuliah\P_Daspro\java>java myArray
5
12
7
30
```

Questions 1

1. The smallest is num[0] = 5, and the largest is num[3] = 30
2. Because we used int as variable, while the content is using point (.) which only can be used in float or double

```java
J myArray.java > myArray > main(String[])
1    public class myArray
2    {
         Run | Debug
3        public static void main(String[]args)
4        {
5            int[] num = new int [4];
6            num[0] = 5;
7            num[1] = 12;
8            num[2] = 7;
9            num[3] = 30;
10           for (int i = 0; i < 4; i++)
11           {
12               System.out.println(num[i]);
13           }
14       }
15   }
```

3.

```
D:\hiya kuliah\P_Daspro\java>java myArray
5
12
7
30
```

Experiment 2

```java
J arrayInputLoop.java > arrayInputLoop > main(String[])
 1    import java.util.Scanner;
 2    public class arrayInputLoop
 3    {
      Run | Debug
 4        public static void main (String[]args)
 5        {
 6            Scanner sc = new Scanner (System.in);
 7            int[] finalScore = new int[6];
 8            for(int i = 0; i < 6; i++)
 9            {
10                System.out.print("Enter the final score " + i + ": ");
11                finalScore[i] = sc.nextInt();
12            }
13            for (int i = 0; i < 6; i++)
14            {
15                System.out.println("Final score " + i + " is " + finalScore[i]);
16            }
17        }
18    }
```

```
D:\hiya kuliah\P_Daspro\java>java arrayInputLoop
Enter the final score 0: 7
Enter the final score 1: 5
Enter the final score 2: 3
Enter the final score 3: 9
Enter the final score 4: 8
Enter the final score 5: 1
Final score 0 is 7
Final score 1 is 5
Final score 2 is 3
Final score 3 is 9
Final score 4 is 8
Final score 5 is 1
```

Questions 2

1.

```java
J arrayInputLoop.java > arrayInputLoop > main(String[])
1    import java.util.Scanner;
2    public class arrayInputLoop
3    {
         Run | Debug
4        public static void main (String[]args)
5        {
6            Scanner sc = new Scanner (System.in);
7            int[] finalScore = new int[6];
8            for(int i = 0; i < finalScore.length; i++)
9            {
10               System.out.print("Enter the final score " + i + ": ");
11               finalScore[i] = sc.nextInt();
12           }
13           for (int i = 0; i < 6; i++)
14           {
15               System.out.println("Final score " + i + " is " + finalScore[i]);
16           }
17       }
18   }
```

```
D:\hiya kuliah\P_Daspro\java>java arrayInputLoop
Enter the final score 0: 5
Enter the final score 1: 6
Enter the final score 2: 7
Enter the final score 3: 8
Enter the final score 4: 9
Enter the final score 5: 0
Final score 0 is 5
Final score 1 is 6
Final score 2 is 7
Final score 3 is 8
Final score 4 is 9
Final score 5 is 0
```

2. Because [array name].length is used to count the length that is used by the array

```java
J arrayInputLoop.java > ...
  1    import java.util.Scanner;
  2    public class arrayInputLoop
  3    {
           Run | Debug
  4        public static void main (String[]args)
  5        {
  6            Scanner sc = new Scanner (System.in);
  7            int[] finalScore = new int[6];
  8            for(int i = 0; i < finalScore.length; i++)
  9            {
 10                System.out.print("Enter the final score " + i + ": ");
 11                finalScore[i] = sc.nextInt();
 12            }
 13            for (int i = 0; i < finalScore.length; i++)
 14            {
 15                if (finalScore[i]>70)
 16                {
 17                    System.out.println("Final score " + i + " is " + finalScore[i]);
 18                }
 19            }
 20        }
 21    }
```

3.

```
D:\hiya kuliah\P_Daspro\java>java arrayInputLoop
Enter the final score 0: 80
Enter the final score 1: 90
Enter the final score 2: 50
Enter the final score 3: 100
Enter the final score 4: 20
Enter the final score 5: 70
Final score 0 is 80
Final score 1 is 90
Final score 3 is 100
```

```java
J arrayInputLoop.java > arrayInputLoop > main(String[])
1    import java.util.Scanner;
2    public class arrayInputLoop
3    {
     Run | Debug
4        public static void main (String[]args)
5        {
6            Scanner sc = new Scanner (System.in);
7            int[] finalScore = new int[6];
8            for(int i = 0; i < finalScore.length; i++)
9            {
10               System.out.print("Enter the final score " + i + ": ");
11               finalScore[i] = sc.nextInt();
12           }
13           for (int i = 0; i < finalScore.length; i++)
14           {
15               if (finalScore[i]>70)
16               {
17                   System.out.println("Student " + i + " Passed");
18               }
19               else
20               {
21                   System.out.println("Student " + i + " Failed");
22               }
23           }
24       }
25   }
```

4.

```
D:\hiya kuliah\P_Daspro\java>java arrayInputLoop
Enter the final score 0: 70
Enter the final score 1: 80
Enter the final score 2: 90
Enter the final score 3: 50
Enter the final score 4: 40
Enter the final score 5: 20
Student 0 Failed
Student 1 Passed
Student 2 Passed
Student 3 Failed
Student 4 Failed
Student 5 Failed
```

Experiment 3

```
J averageScore.java > ⅏ averageScore > ⊙ main(String[])
 1    import java.util.Scanner;
 2    public class averageScore
 3    {
         Run | Debug
 4        public static void main (String[]args)
 5        {
 6            Scanner sc = new Scanner (System.in);
 7            int[] score = new int[10];
 8            double total = 0;
 9            double average;
10            for (int i = 0; i < score.length; i++)
11            {
12                System.out.print("Enter student score " + (i + 1) + ": ");
13                score[i] = sc.nextInt();
14            }
15            for (int i = 0; i < score.length; i++)
16            {
17                total += score[i];
18            }
19            average = total / score.length;
20  ⁰        System.out.println("The class average score is " + average);
21        }
22    }
```

```
D:\hiya kuliah\P_Daspro\java>java averageScore
Enter student score 1: 80
Enter student score 2: 70
Enter student score 3: 60
Enter student score 4: 90
Enter student score 5: 80
Enter student score 6: 10
Enter student score 7: 70
Enter student score 8: 20
Enter student score 9: 90
Enter student score 10: 80
The class average score is 65.0
```

Questions 3

1. Because if we write the calculation inside the loop, it will calculate while we input the score, so the calculation will be looped until the input is completed

```java
J averageScore.java > averageScore > main(String[])
  2    import java.util.Scanner;
  3    public class averageScore
  4    {
          Run | Debug
  5        public static void main (String[]args)
  6        {
  7            Scanner sc = new Scanner (System.in);
  8            System.out.print(s: "Enter the number of students: ");
  9            int st = sc.nextInt();
 10            int[] score = new int[st];
 11            double total = 0;
 12            double average;
 13            for (int i = 0; i < score.length; i++)
 14            {
 15                System.out.print("Enter student score " + (i + 1) + ": ");
 16                score[i] = sc.nextInt();
 17            }
 18            for (int i = 0; i < score.length; i++)
 19            {
 20                total += score[i];
 21            }
 22            average = total / score.length;
 23            System.out.println("The class average score is " + average);
 24        }
 25    }
```

2.

```
D:\hiya kuliah\P_Daspro\java>java averageScore
Enter the number of students: 5
Enter student score 1: 20
Enter student score 2: 90
Enter student score 3: 100
Enter student score 4: 80
Enter student score 5: 87
The class average score is 75.4
```

Assignment

```java
J jobsheet8asg1.java > ↳ jobsheet8asg1 > ⊙ main(String[])
 2    public class jobsheet8asg1
 3    {
          Run | Debug
 4        public static void main (String[]args)
 5        {
 6            Scanner sc = new Scanner (System.in);
 7            int[] ast = new int[5];
 8            for (int i = 0; i < ast.length; i++)
 9            {
10                System.out.print("Input the value of array [" + (i+1) + "]: ");
11                ast[i] = sc.nextInt();
12            }
13            System.out.print(s: "The value of array in reverse order is ");
14            for (int i = ast.length-1; i >= 0; i--)
15            {
16                System.out.print("[" + ast[i] + "]");
17            }
18        }
19    }
```

1.

```
D:\hiya kuliah\P_Daspro\java>java jobsheet8asg1
Input the value of array [1]: 5
Input the value of array [2]: 7
Input the value of array [3]: 8
Input the value of array [4]: 4
Input the value of array [5]: 3
The value of array in reverse order is [3][4][8][7][5]
```

```java
import java.util.Scanner;
public class jobsheet8asg2
{
    Run | Debug
    public static void main (String[]args)
    {
        Scanner sc = new Scanner (System.in);
        System.out.print(s: "Enter the number of array elements: ");
        int sum = sc.nextInt();
        int[] ast = new int[sum];
        for (int i = 0; i < ast.length; i++)
        {
            System.out.print("Enter the value of element " + (i+1) + ": ");
            ast[i] = sc.nextInt();
        }
        int high = 0;
        for (int i = 0; i < ast.length; i++)
        {
            if (ast[i] > high)
            {
                high = ast[i];
            }
        }
        System.out.println("The largest number is " + high);
    }
}
```

2.

```
D:\hiya kuliah\P_Daspro\java>java jobsheet8asg2
Enter the number of array elements: 4
Enter the value of element 1: 27
Enter the value of element 2: 8
Enter the value of element 3: 33
Enter the value of element 4: 11
The largest number is 33
```

```java
import java.util.Scanner;
public class jobsheet8asg3
{
    Run | Debug
    public static void main (String[]args)
    {
        Scanner sc = new Scanner (System.in);
        System.out.print(s: "Enter the number of array elements: ");
        int a = sc.nextInt();
        int[] ast = new int[a];
        for (int i = 0; i < ast.length; i++)
        {
            System.out.print("Enter the value of element " + (i+1) + ": ");
            ast[i] = sc.nextInt();
        }
        for (int i = 0; i < ast.length; i++)
        {
            if (ast[i] % 2 == 0)
            {
                System.out.println("Even number: " + ast[i]);
            }
        }
        for (int i = 0; i < ast.length; i++)
        {
            if (ast[i] % 2 == 1)
            {
                System.out.println("Odd number: " + ast[i]);
            }
        }
    }
}
```

3.

```
D:\hiya kuliah\P_Daspro\java>java jobsheet8asg3
Enter the number of array elements: 6
Enter the value of element 1: 7
Enter the value of element 2: 3
Enter the value of element 3: 5
Enter the value of element 4: 8
Enter the value of element 5: 2
Enter the value of element 6: 1
Even number: 8
Even number: 2
Odd number: 7
Odd number: 3
Odd number: 5
Odd number: 1
```