Write a Java program to print the third largest number in an array

Read the following details of ‘n’ students using Scanner class methods and display the same. - Registration number ( String)

* Name (String that may contain first name, middle name and last name)
* CGPA (Floating point number)
* Programme Name(String)
* School Name (String with multiple words)
* Proctor Name (String that may contain first, middle and last names)

Write a Java program to sort an array of positive integers of an given array, in the sorted array the value of the first element should be maximum, second value should be minimum value, third should be second maximum, fourth second be second minimum and so on.

Write a Java program to separate even and odd numbers of an given array of integers. Put all even numbers first, and then odd numbers.

Write a Java program to convert a binary number to decimal number and to decimal number to binary number.

Write a Java program to test if the first and the last element of an array of integers are same. The length of the array must be greater than or equal to 2.   
Test Data: array = 50, -20, 0, 30, 40, 60, 10  
Sample Output:

False

Write a Java program to test if the first and the last element of two array of integers are same. The length of the array must be greater than or equal to   
Test Data: array1 = 50, -20, 0, 30, 40, 60, 12  
array2 = 45, 20, 10, 20, 30, 50, 11  
Sample Output:

false

Write a Java program to create a new array of length 2 from two arrays of integers with three elements and the new array will contain the first and last elements from the two arrays   
Test Data: array1 = 50, -20, 0  
array2 = 5, -50, 10  
Sample Output:

Array1: [50, -20, 0]

Array2: [5, -50, 10]

New Array: [50, 10]

 Write a Java program to test that a given array of integers of length 2 contains a 4 or a 7.

Sample Output:

Original Array: [5, 7]

true

 Write a Java program to rotate an array (length 3) of integers in left direction.    
Sample Output:

Original Array: [20, 30, 40]

Rotated Array: [30, 40, 20]

Write a Java program to get the larger value between first and last element of an array (length 3) of integers .    
Sample Output:

Original Array: [20, 30, 40]

Larger value between first and last element: 40

Write a Java program to swap the first and last elements of an array (length must be at least 1) and create a new array.

Sample Output:

Original Array: [20, 30, 40]

New array after swaping the first and last elements: [40, 30, 20]

Write a Java program to find the largest element between first, last, and middle values from an array of integers (even length).

Sample Output:

Original Array: [20, 30, 40, 50, 67]

Largest element between first, last, and middle values: 67

Write a Java program to multiply corresponding elements of two arrays of integers.    
Sample Output:

Array1: [1, 3, -5, 4]

Array2: [1, 4, -5, -2]

Result: 1 12 25 -8

Write a Java program to add two matrix.

Write a Java program to multiply two matrix.

Write a Java program to Calculate diagonal element.

Write a Java Program to print this pattern for n lines

1

12

123

1234

1234

123

12

1

**Write a program to demonstrate the knowledge of students in multidimensional arrays and looping constructs.   
Eg., If there are 4 batches in BTech - “CSE1007” course, read the count of the slow learners (who have scored <25) in each batch. Tutors should be assigned in the ratio of 1:4 (For every 4 slow learners, there should be one tutor). Determine the number of tutors for each batch. Create a 2-D jagged array with 4 rows to store the count of slow learners in the 4 batches. The number of columns in each row should be equal to the number of groups formed for that particular batch ( Eg., If there are 23 slow learners in a batch, then there should be 6 tutors and in the jagged array, the corresponding row should store 4, 4, 4, 4, 4,3). Use for-each loop to traverse the array and print the details. Also print the number of batches in which all tutors have exactly 4 students.**