```java
/*
 * Package java.util
 * Class Arrays
 * This is a short program which tests all the available methods in the Arrays class
 * and prints out the result on the console output.
*/

import java.util.*;

public class Array {

    public static void main(String[] args){
        int[] intArray = {1,2,3,40,5};

        //Using toString method from the Arrays class
        System.out.println("intArray: " + Arrays.toString(intArray));

        //Using binarySearch method from Arrays class
        System.out.println("Index of 40: " + Arrays.binarySearch(intArray, 40));

        //Using the copyOf method of the Arrays class
        int[] newArray = Arrays.copyOf(intArray, 6);
        System.out.println("newArray: " + Arrays.toString(newArray));

        //Using the copyRangeOf method of the Array class
        //Does not include the toIndex, takes everything before that
        int[] anotherArray = Arrays.copyOfRange(intArray, 2, 5);
        System.out.println("anotherArray: " + Arrays.toString(anotherArray));

        //Using the deepEquals method of the Array class
        int[][] deepArray = {intArray, newArray, anotherArray};
        int[][] anotherDeepArray = {intArray, newArray,
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  anotherArray};
33          int[][] newDeepArray = {intArray, newArray, {1,2,3}};
34          System.out.println("intArray.deepEquals(anotherDeepArr
  ay):  " + Arrays.deepEquals(deepArray, anotherDeepArray));
35          System.out.println("intArray.deepEquals(newDeepArray):
  " + Arrays.deepEquals(deepArray, newDeepArray));
36
37          //Using the deepHashCode method of the Arrays class
38          System.out.println("HashCode(deepArray): " +
  Arrays.deepHashCode(deepArray));
39
40          //Using the deepToString method fo the Array class
41          System.out.println("deepArray: " +
  Arrays.deepToString(deepArray));
42
43          //Using the equals method of the Arrays class
44          System.out.println("intArray.equals(newArray):  " +
  Arrays.equals(intArray, newArray));
45          System.out.println("intArray.equals(intArray):  " +
  Arrays.equals(intArray, intArray));
46
47          //Using the fill method of the Arrays class
48          Arrays.fill(intArray, 40);
49          System.out.println("Fill(intArray, 40):  " +
  Arrays.toString(intArray));
50
51
52  /*      OUTPUT of the program:
53   *
54   *      intArray: [1, 2, 3, 40, 5]
55          Index of 40: 3
56          newArray: [1, 2, 3, 40, 5, 0]
57          anotherArray: [3, 40, 5]
58          intArray.deepEquals(anotherDeepArray):  true
59          intArray.deepEquals(newDeepArray):  false
60          HashCode(deepArray): 1088175066
61          deepArray: [[1, 2, 3, 40, 5], [1, 2, 3, 40, 5, 0], [3,
  40, 5]]
62          intArray.equals(newArray):  false
63          intArray.equals(intArray):  true
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64          Fill(intArray, 40):  [40, 40, 40, 40, 40]
65 */
66      }
67
68 }
69
```