Review Questions

7.1 | Declare and create a 4-by-5 int matrix.

`int[][] matrix = new int[ 4 ][ 5 ];`

7.2 | Can the rows in a two-dimensional array have different lengths?

Yes, because every element of a two-dimensional array is another one-dimensional array and there are no obligation to every one-dimensional array has to be same length.

This kind of arrays call as a *ragged array*.

7.3 | What is the output of the following code?

```
int[][] array = new int[5][6];
int[] x = {1, 2};
array[0] = x;
System.out.println("array[0][1] is " + array[0][1]);
```

Output is: array[0][1] is 2

7.4 | Which of the following statements are valid array declarations?

```
// This is not valid because it need one more closed bracket to create an array.
int[][] r = new int[2];
// This is not valid because it need length to create an array.
int[] x = new int[];
// This is valid because it just need first dimension length to create an array..
int[][] y = new int[3][];
```

7.5 | Why does the is1To9 method need to copy list to temp? What happens if you replace the code in lines 66–70 in Listing 7.4 with the following code: `java.util.Arrays.sort(list);`

It break solution. Because in original solution we take an array copy them another array then sort and check whether is 1 to 9. But if we change according to question, we start to sort actual array. Therefore, the solution of the sudoku will have been modified.

7.6 | Declare and create a 4 × 6 × 5 int array.

`int[][][] array = new int[ 4 ][ 6 ][ 5 ];`