1. Draw a picture showing the array contents after execution of the following code fragments.

```java
int[][] table = new int[3][2];
for (int i=0; i < table.length; i++)
    for (int j=0; j < table[i].length; j++)
        table[i][j] = i + j;
```

![Array Contents](image)

2. Write a method `addThree` with one parameter, an array of int, that adds 3 to each element of the array. The method should not return anything.

```java
public void addThree(int[] a)
{
    for (int j = 0; j < a.length; j++)
        a[j] += 3;
}
```

3. Trace through the following code and show what gets printed.

```java
int[] a = {100, 200, 300, 400};
int[] b = {1000, 2000, 3000, 4000};
int[] c = b;
for (int i=0; i<a.length; i++)
    b[i] = a[i];
ap[1] = 44;
b[2] = 55;
c[3] = 66;
for (int x: a)
    System.out.print(x + " ");
System.out.println();
for (int x: b)
    System.out.print(x + " ");
System.out.println();
for (int x: c)
    System.out.print(x + " ");
System.out.println();
```

**Output:**

```
100 44 300 400
100 200 55 66
100 200 55 66
```
1. Draw a picture showing the array contents after execution of the following code fragments.

```java
int[][] table = new int[2][4];
for (int i=0; i < table.length; i++)
    for (int j=0; j < table[i].length; j++)
        table[i][j] = i - j;
```

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
</tr>
</tbody>
</table>

2. Write a method `addThree` with one parameter, an array of int, that adds 3 to each element of the array. The method should not return anything.

```java
public void addThree(int[] a)
{
    for (int j = 0; j < a.length; j++)
        a[j] += 3;
}
```

3. Trace through the following code and show what gets printed.

```java
int[] a = {100, 200, 300, 400};
int[] b = {1000, 2000, 3000, 4000};
int[] c = a;
for (int i=0; i<a.length; i++)
    a[i] = b[i];

a[1] = 77;
b[2] = 88;
c[3] = 99;
for (int x: a)
    System.out.print(x + " ");
System.out.println();
for (int x: b)
    System.out.print(x + " ");
System.out.println();
for (int x: c)
    System.out.print(x + " ");
System.out.println();
```

**Output:**

```
1000 77 3000 99
1000 2000 88 4000
1000 77 3000 99
```