

# Exam 2 Review

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# Multidimensional Arrays

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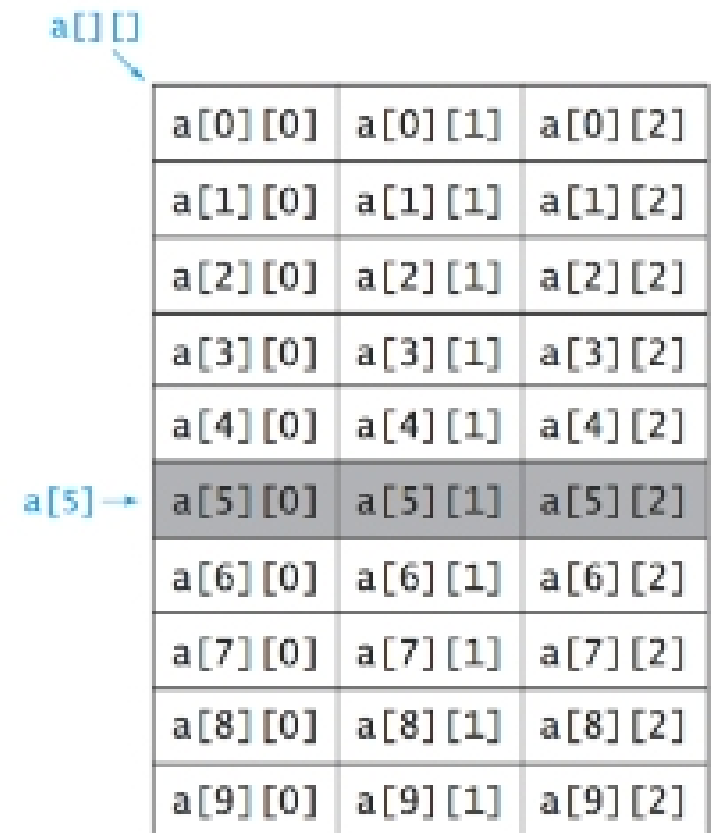
## Two Dimensional Arrays in Java

Array access. Use `a[i][j]` to access element in row `i` and column `j`.

Zero-based indexing. Row and column indices start at 0.

```
double[][] a = new double[10][3];
for (int i = 0; i < 10; i++) {
    for (int j = 0; j < 3; j++) {
        a[i][j] = 0.0;
    }
}
```

**Declaring and Initializing a 10-by-3 Array**



The diagram shows a 10-by-3 array represented as a table. The rows are labeled from `a[0]` to `a[9]` on the left. The columns are labeled from `[0]` to `[2]` on the top. The row `a[5]` is highlighted in gray. A blue arrow points to the top-left cell `a[0][0]` with the label `a[][]`. Another blue arrow points to the row `a[5]` with the label `a[5] →`.

<code>a[0][0]</code>	<code>a[0][1]</code>	<code>a[0][2]</code>
<code>a[1][0]</code>	<code>a[1][1]</code>	<code>a[1][2]</code>
<code>a[2][0]</code>	<code>a[2][1]</code>	<code>a[2][2]</code>
<code>a[3][0]</code>	<code>a[3][1]</code>	<code>a[3][2]</code>
<code>a[4][0]</code>	<code>a[4][1]</code>	<code>a[4][2]</code>
<code>a[5][0]</code>	<code>a[5][1]</code>	<code>a[5][2]</code>
<code>a[6][0]</code>	<code>a[6][1]</code>	<code>a[6][2]</code>
<code>a[7][0]</code>	<code>a[7][1]</code>	<code>a[7][2]</code>
<code>a[8][0]</code>	<code>a[8][1]</code>	<code>a[8][2]</code>
<code>a[9][0]</code>	<code>a[9][1]</code>	<code>a[9][2]</code>

*A 10-by-3 array*