

## 2-D Arrays

```
int a[3][4];  
for(i = 0; i < 3; i++)  
  for(j = 0; j < 4; j++)  
    a[i][j] = 0;
```

*Row subscript*  
*Column subscript*

	0	1	2	3
0				
1				
2				

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## Rowwise Operations

*For rowwise operations, the column subscript varies faster*

```
int a[3][4];  
for(i = 0; i < 3; i++)  
  for(j = 0; j < 4; j++)  
    cin >> a[i][j];
```

	0	1	2	3
0				
1				
2				

*Note that rowwise input/output is the "natural" way to do it!*

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# Columnwise Operations

*For columnwise operations, the row subscript varies faster*

```
int a[3][4];  
for(j = 0; j < 4; j++)  
  for(i = 0; i < 3; i++)  
    cin >> a[i][j];
```

	0	1	2	3
0				
1				
2				

*What would this output look like?*

```
for(j = 0; j < 4; j++)  
{  
  for(i = 0; i < 3; i++)  
    cout << a[i][j] << ' ';  
  cout << endl;  
}
```

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