CS 161
Intro to CS I

Static 2-d array...
```cpp
for (int i = 0; i < ROWS; i++)
    for (int j = 0; j < COLS; j++)
        a[i][j] = 100;

cout << "where does a live: " " " &a " endl;
cout << "where does 1st row pointer live: " " " a " endl;
cout << "where does 1st row live/1st element: " " " &a[0] " endl;
cout << "where does 1st row live/1st element: " " " &a[0][0] " endl;
cout << "contents of 1st element: " " " a[0][0] " endl;
cout << "where does 1st row live/2nd element: " " " &a[0][1] " endl;
cout << "where does 1st row live/3rd element: " " " &a[0][2] " endl;
cout << "where does 2nd row live/1st element: " " " &a[1][0] " endl;
cout << "where does 2nd row live/1st element: " " " a[1] " endl;
cout << a[1][0] " " " " a[0][4] " endl;
cout << *(a+1) + 0 " endl;
cout << *((a+(1*COLS))+0) " endl;
cout << " why is this no good??? " endl;
return 0;
```
Static 2-D arrays...

```
array[0][0]  0
array[0][1]  32
array[0][2]  64
array[1][0]  96
array[1][1]  128
array[1][2]  160
```

Parameters:
- row stride
- col stride
- 32 bits
- 64 bits

Example:
```
i = 3
j = 2

// Compute the index
index = (i * row_stride) + j
```
In-class Exercise #5

• Get into groups of 4-5.
• Draw the picture and pseudo code for creating an int ****p; that points to int i; (no other named memory locations allowed!!!!)