

# Announcements

- **Final Exam: Wednesday 12/13, 4:00PM to 6:00PM**

## **Room Assignments:**

**Last names A-N → PHY 1412**

**Last names O-Z → SPH 1312**

- **Please complete course evaluations:  
<https://www.courseevalum.umd.edu/>**

# Review

- **Go over quiz**

# Review

**Complete the function below, which returns the product of the two parameters. Assume the parameters are both non-zero integers. You must implement this with recursion using repeated addition (you may not use the multiplication operator).**

```
function multiply(a, b) {
```

# Review

Complete the function below **using recursion**. Assume the parameter is a positive integer. The function will return an array that contains all of the numbers from 1 up to the parameter in consecutive order. For example, if the parameter is the value 5 then the return value should be the array [1, 2, 3, 4, 5];

```
function makeSequence(value) {
```

# Review

Complete the function below **using recursion**. Assume the parameter is a positive integer. The function will return an array that contains all of the numbers from 1 up to the parameter in consecutive order. For example, if the parameter is the value 5 then the return value should be the array [1, 2, 3, 4, 5];

```
function makeSequence(value) {
```

# Review

Complete the function below, which will return a 2-Dimensional array. The first parameter is an array that specifies how long each row will be. The second parameter is an array that specifies what value each row will contain. **For example**, if the first array is [3, 4, 2] and the second array is ["hi", 3.2, 6] then the return value should be this 2-Dimensional array:

```
"hi" "hi" "hi"  
3.2  3.2  3.2  3.2  
6    6
```

```
function make2DArray(rowLengths, values) {
```