Assignment 06

- Most popular combos
  - sepia/negative/tint
  - obamicon
  - pointillism
  - sharpen/blur
- Comment your filters!
- Filter originality/creativity
- Collage arrangement

Convolution on the same source and destination

- Use an array of PImage
- Use a loop
- Use the pixel functions associated with an image, not those that apply to the entire sketch
  - img.loadPixels()
  - img.pixels[]
  - img.updatePixels()
- You need 2 PImages for convolution!

Convolution on a different destination

Exam Review

Resources

- Exam Week Office Hours
  - Me
    - Tuesday (5/3) 1pm-2pm
    - Wednesday (5/4) 1pm-2pm
  - Professor Xu
    - Monday 5/2 2pm-4pm
- Last Quiz
  - longer than usual
  - ungraded, solutions provided

Topics

- 1d array
- classes/objects
- recursion
- transformations
- 2d array
- strings
- ArrayList
Arrays
- Declaration
- Creation
- Initialization
- General iteration/access
- Functions that take and return arrays
- Arrays that store objects

Classes/Objects
- Creating/designing a class
- Constructors
  - parameters
  - initialization
- Methods
- Object creation
- Object storage in arrays

Recursion
- Understanding the recursive principal
- Base case
- Recursive call

Transformations
- translate()
- rotate()
- scale()
- pushMatrix()
- popMatrix()
- order of transformations

Strings
- Declaration
- Creation/initialization
- String methods
  - length()
  - equals()
  - indexOf()
  - substring()

2D Array
- Is an array of 1D arrays
  - arr.length
  - arr[i].length
- ragged 2D arrays
### ArrayList
- Declaration
  - parameterized type
- Creation
- Traversal
- `size()`
- `get(i)`
- Insertion
- Removal

### Odds and Ends
- When asked to write code segments, functions, etc., you do not need to write a complete program
  - no need for `void setup()`
  - `size()`
  - etc
- Perform full traces and write down intermediate values whenever possible