Assignment 2

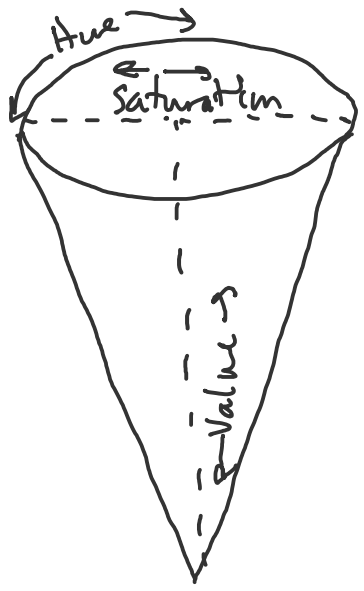
Wednesday, January 31, 2018 5:01 PM

1. A pixel is a representation of a point of light, where many pixels make up a visual image. Ideally, a pixel should be infinitessimally small, but in reality technical limitations mean pixel size is limited by capture technique, display characteristics, and data size constraints.

2. a. Scale factor of 1. This will not change the image much other than shifting it to the left slightly.
b. No scale factor applies. This will delete data from top edges and emphasize bottom edges.
c. Scale factor of 1/16. This is a filter that will blur the image.

3. With boundary padding, one would need 980,000 multiplications.

4.



H → Hue
S → Saturation
V → value

Hue represents the 6 primary and secondary colors. Increasing/decreasing it changes base colors being mixed together.

Value represents the amount of color present, period, where a value of zero is no color, black.

Saturation represents how strongly the hue is presented; makes colors duller or brighter.

5. The problem with this is that if done improperly, it causes colors on the low end and high end to get "crushed" together. Variations in colors on the ends disappear.