

# CMSI 371-01

## COMPUTER GRAPHICS

Spring 2016

### Assignment 0308 Feedback

Outcomes that eventually cover both 2D and 3D continue to max out at | for now because this assignment remains in 2D.

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*Notes while running (high-priority notes are marked with \*\*\*):*

- Filters run fine, but to the eye they are all pretty same-isa except for the neighborhood shadow filter. Code review will reveal how similar they actually are.
- As for the circle gradient...something shows up, and it really isn't that unpleasant to look at, but it's just not the type of gradient that we want to see.

*Code review (refer to <http://lmucs.github.io/backing-guidelines/> for code-review abbreviations):*

1. The single-pixel filters are generally the same type of calculation, differing only in terms of their coefficients. Plus the `(r == 0 || g == 0 || b == 0)` condition is somewhat questionable...my guess is that you are making sure that black pixels still show some effect because the computations use multiplication, but...doesn't that mean you want an *and* rather than an *or*? (2c, 3c, 4a)
2. The neighborhood filters are also largely the same...following the same general pattern without being very different. Here there is an additional issue of how well you take advantage of the neighborhood...and the answer, unfortunately, is not very much. The shadow filter integrates the pixel to the left, but that's about it. Although orangeToYellow also sort of uses the pixel to the left, this one's effect appears to be very negligible. (2c, 3c, 4a, 4d)
3. The circle gradient will need some more work. The main issue, obviously, is how to compute the color for each pixel; the filling-in part looks covered. You need to discern the octant that is being passed to plotCirclePoints, then truly understand how the colors change from the corners on their way to the coordinates of that octant. The fact that the red color appears in the center tells me that maybe some calculations are switched—based on your function calls, the red color should emanate from the upper-left corner. Sketching things out on graph paper may help. (2c, 2d, 3c, 4a, 4d)

1a — +

2c (max |) — / ...Taken down by the weak neighborhood filters and the circle.

2d — | ...This one is just the circle.

3c — / ...Yep, same as 2c.

4a — | ...Functionality ding for the possibly incorrect single-pixel RGB condition and the circle.

4b — +

4c — +

4d — |

4e — Decent messages and frequency, though all in a single day! Considering the type of assignment and its timing, I'll go easier on that—but still, try to spread the work a *little* bit. (|)

4f — Submitted on time. (+)