

Topic 10 problems

1. (a) Make a 256 x 256 image matrix that shows a ring with inner radius 100 pixels and outer radius 120 pixels.

(b) The image matrix you created for (a) probably looks jaggy, i.e., you can see the sharp corners of the pixels at the edge of the ring. How can you make a smoother transition between the ring and the background? Hint: to make the ring in part (a) you probably made a matrix R that represents the distance of each pixel from the centre of the image. Make or find a MATLAB function $f()$ such that $f(R)$ is a ring with smooth edges.