

ECE160 - CMPSC182
Assignment 1, Spring 2008
Due: In class, 5p.m. April 15

Color inkjet printers use the CMY model. To make direct printing easier, it is possible to purchase CMY cameras.

- a) Explain why color printers use CMY while CRT displays use RGB. Which strategy does a LCD display use?
- b) Draw spectral curves depicting the spectral sensitivity of a CMY camera, based on Figure 4.17(a) of the text.
- c) Plot that sensitivity on three dimensions, as in Figure 4.20(a).
- d) Determine a transformation to convert CMY to RGB.
- e) Discuss whether the colors resulting from CMY to RGB conversion are as good as the colors of a direct RGB camera or of the human eye, as in Figure 4.10.
- f) Compare the colors achieved by converting a CMY camera to RGB and then back to CMY, with the colors achieved by converting a RGB camera to CMY for printing.