

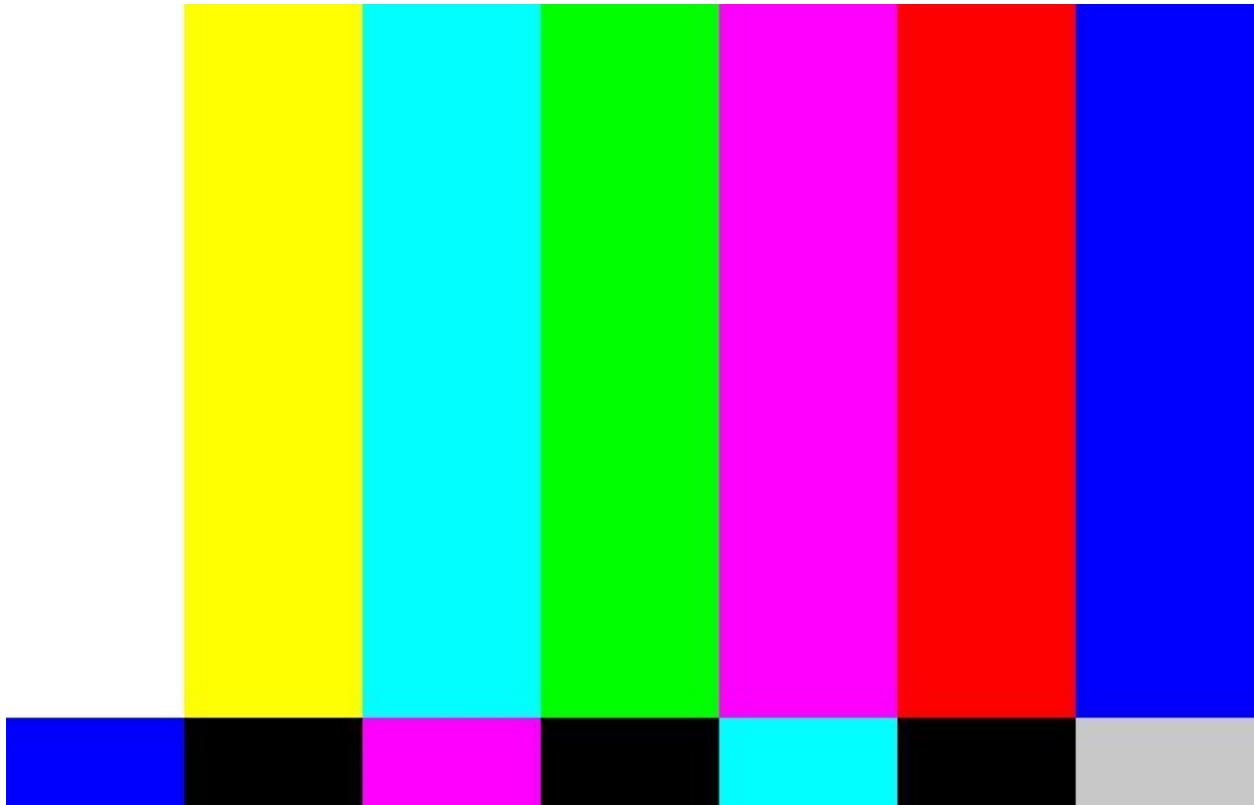
# Homework 3: Color Test (20 pts)

## Setup

1. Locate your "CS102" folder
2. Create a folder inside "CS102" called "hw03"
3. Download [hw03.zip](#)
4. Extract the content of the zip file to hw03 in your CS102 folder
5. Open "hw03.py" with Thonny
6. **Submit hw03.py to Moodle when you are finished**

## Part I:

You will recreate the following image using code.



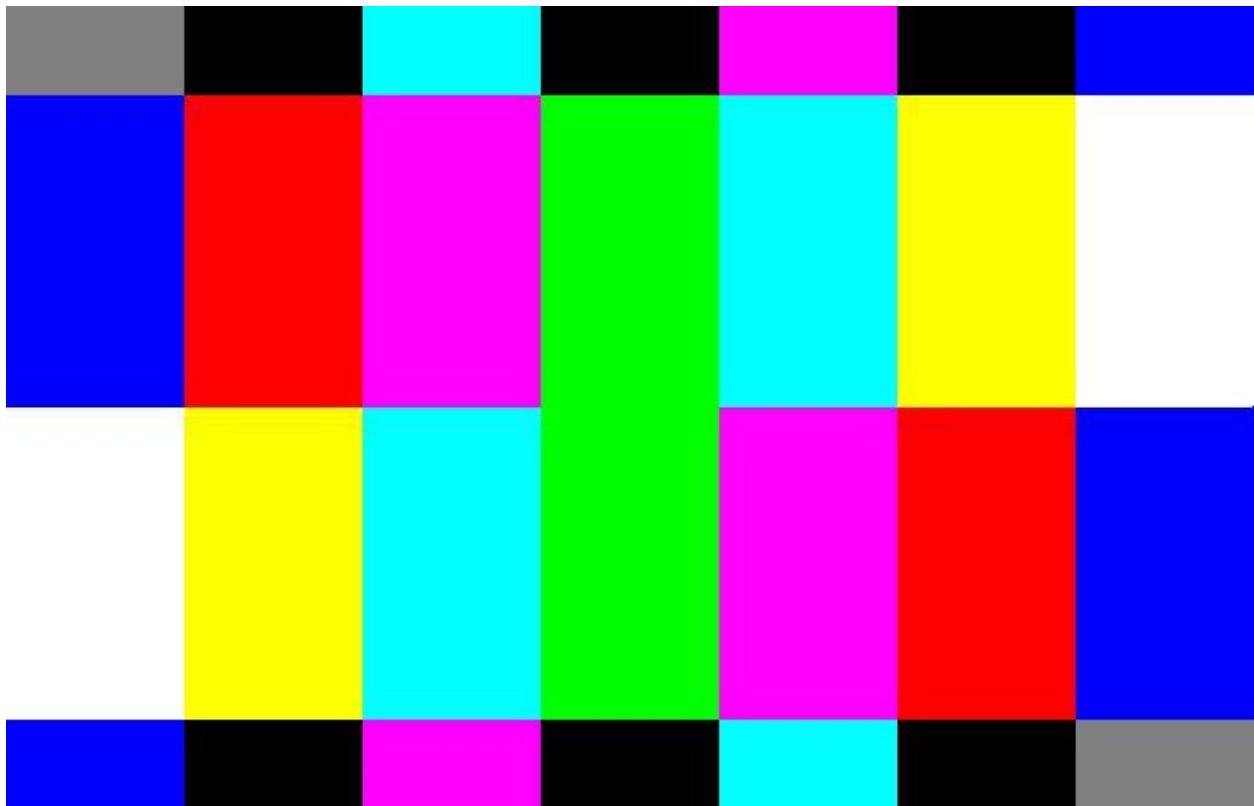
**Note:** The black border around this image is only to make the white portion of the image not blend in with the background.

The image dimensions are 700 x 450 pixels (width and height respectively). Each section of the image is one solid color. The long bars of color are 100 x 400 pixels and each smaller color block is 100 x 50. You must use the media constants to select the appropriate colors. To help with the implementation you will have **two functions**, one that draws the upper colors and one that draw the lower colors. You will save the resulting image with the filename `color_test.jpg`.

**DO NOT SUBMIT THE IMAGE FOR THE ASSIGNMENT ONLY THE CODE!**

## Part II:

You will create a function that mirrors the bottom half of the image to the top half of the image as shown below. You will save the resulting image with the filename `color_test_mirror.jpg`.



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## Useful media.py Functionality

- `media.gray`
- `media.red`
- `media.white`
- `media.black`
- `media.blue`
- `media.cyan`
- `media.magenta`
- `media.yellow`
- `media.green`
- `media.makeEmptyPicture(width, height)`
- `media.getPixel(picture, x, y)`
- `media.setColor(pixel, color)`
- `media.writePictureTo(picture, filename)`
- `media.quit()`

## Graded Requirements

- Code runs to completion without errors making it stop (9 pts)
- Output images have the correct dimensions (1 pts)
- Output images are named correctly (1 pts)
- Output images have correct colors (1 pts)
- Size and orientation of each color is correct (1 pts)
- One function to draw the top color bars (2 pts)
- One function to draw the bottom color bars (2 pts)
- One function to mirror the bottom half of the image to the top (3 pts)