



Lab 0 - Color Conversion

Several different formats are used to represent color. For example, the primary format for LCD displays, digital cameras, and web pages, known as the RGB format, specifies the level of red (R), green (G), and blue (B) on an integer scale from 0 to 255. The primary format for publishing books and magazines, known as the *CMYK format*, specifies the level of cyan (C), magenta (M), yellow (Y), and black (K) on a real scale from 0.0 to 1.0. Compose a program that converts RGB to CMYK. Accept three integers —**r**, **g** and **b**— from the command line and write the equivalent CMYK values. Use the following formula to find the CMYK values:

$$w = \max\left(\frac{r}{255}, \frac{g}{255}, \frac{b}{255}\right)$$

$$c = \frac{w - \frac{r}{255}}{w}, m = \frac{w - \frac{g}{255}}{w}, y = \frac{w - \frac{b}{255}}{w}, k = 1 - w$$

You can use the Python `input()` function to take user input from the command line. By default, this function returns the user's input in form of a string, as shown below.

```
>>> x = input("Enter a number: ")
Enter a number: 5
>>> x
'5'
```