In this program has 6 formulas for transforming a picture.

* RGB to YIQ
* YIQ to RGB
* RGB to YCBCR
* YCBCBR to RGB
* YIQ to YCBCR
* YCBCR to YIQ

The transform formula is bellowing.

**RGB to YIQ**

    y = (0.299)\*r + (0.587)\*g + (0.114)\*b

    i = (0.596)\*r - (0.274)\*g - (0.322)\*b

    q = (0.211)\*r - (0.523)\*g + (0.312)\*b

**YIQ to RGB**

    r = y + (0.956)\*i + (0.620)\*q

    g = y - (0.272)\*i - (0.647)\*q

    b = y - (1.108)\*i + (1.705)\*q

**RGB to YCBCR**

    yy = (0.257)\*r + (0.504)\*g + (0.098)\*b + 16

    cb = -(0.148)\*r - (0.291)\*g +(0.439)\*b + 128

    cr = (0.439)\*r -(0.368)\*g - (0.071)\*b + 128

**YCBCBR to RGB**

 r = (1.164)\*(yy-16) + (1.596)\*(cr-128)

    g = (1.164)\*(yy-16) - (0.392)\*(cb-128) - (0.813)\*(cr-128)

    b = (1.164)\*(yy-16) + (2.017)\*(cb-128)

**YIQ to YCBCR**

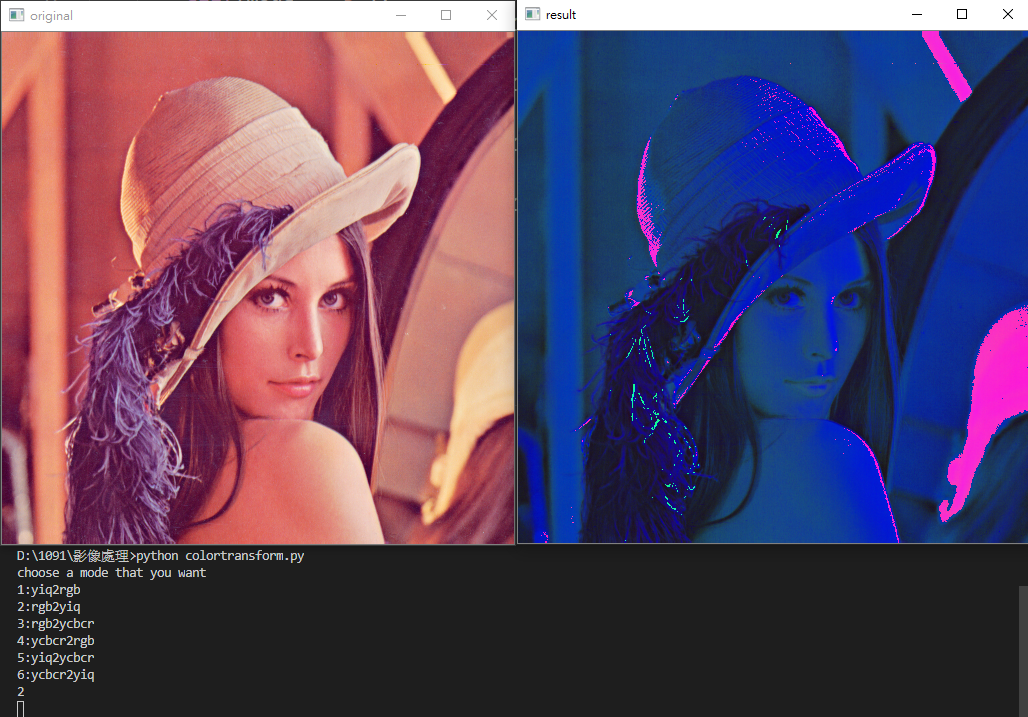
Using above formula **YIQ to RGB** than **RGB to YCBCR**

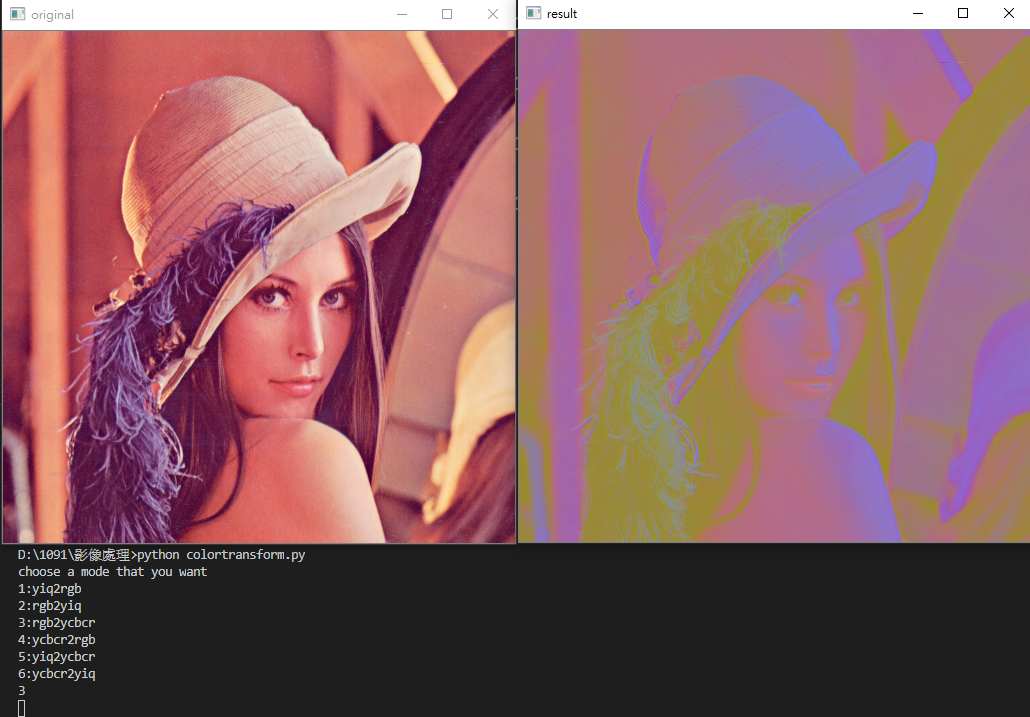
**YCBCR to YIQ**

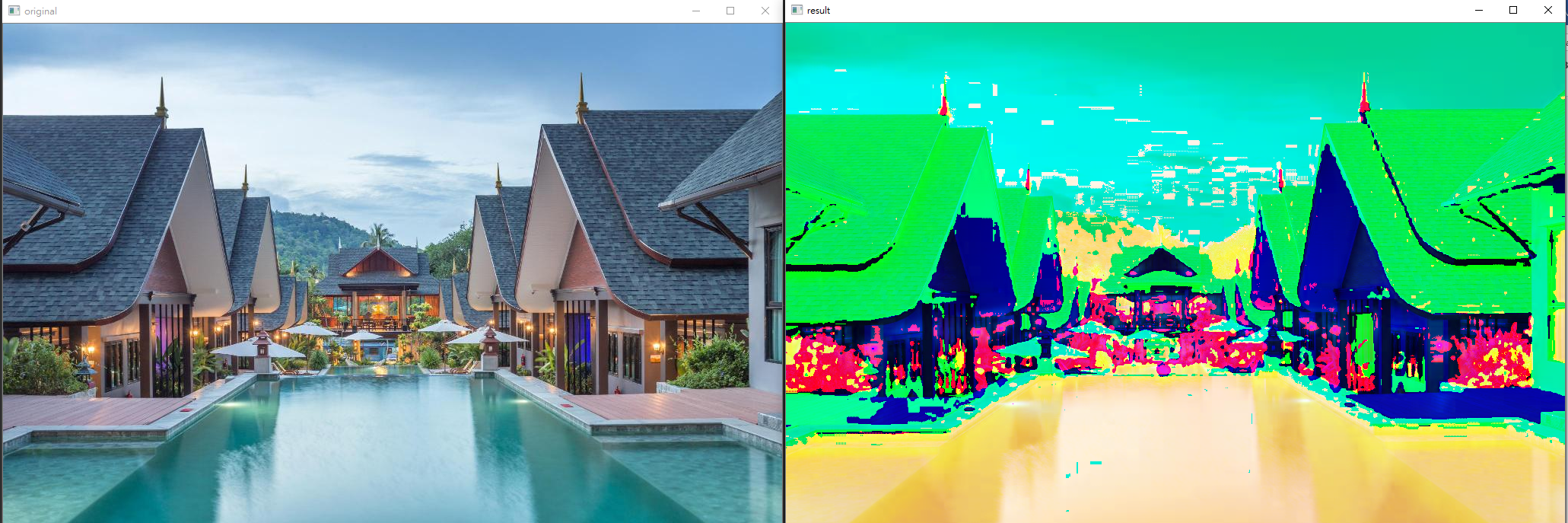
Using above formula **YCBCR to RGB** than **RGB to YIQ**

IN this program you can choose the mode that you want to transform.

* **DEMO1(RGB to YIQ)**



* **DEMO2(RGB to YCBCR)**
* **DEMO3(RGB to YIQ)**



* **DEMO3(RGB to YCBCR)**

