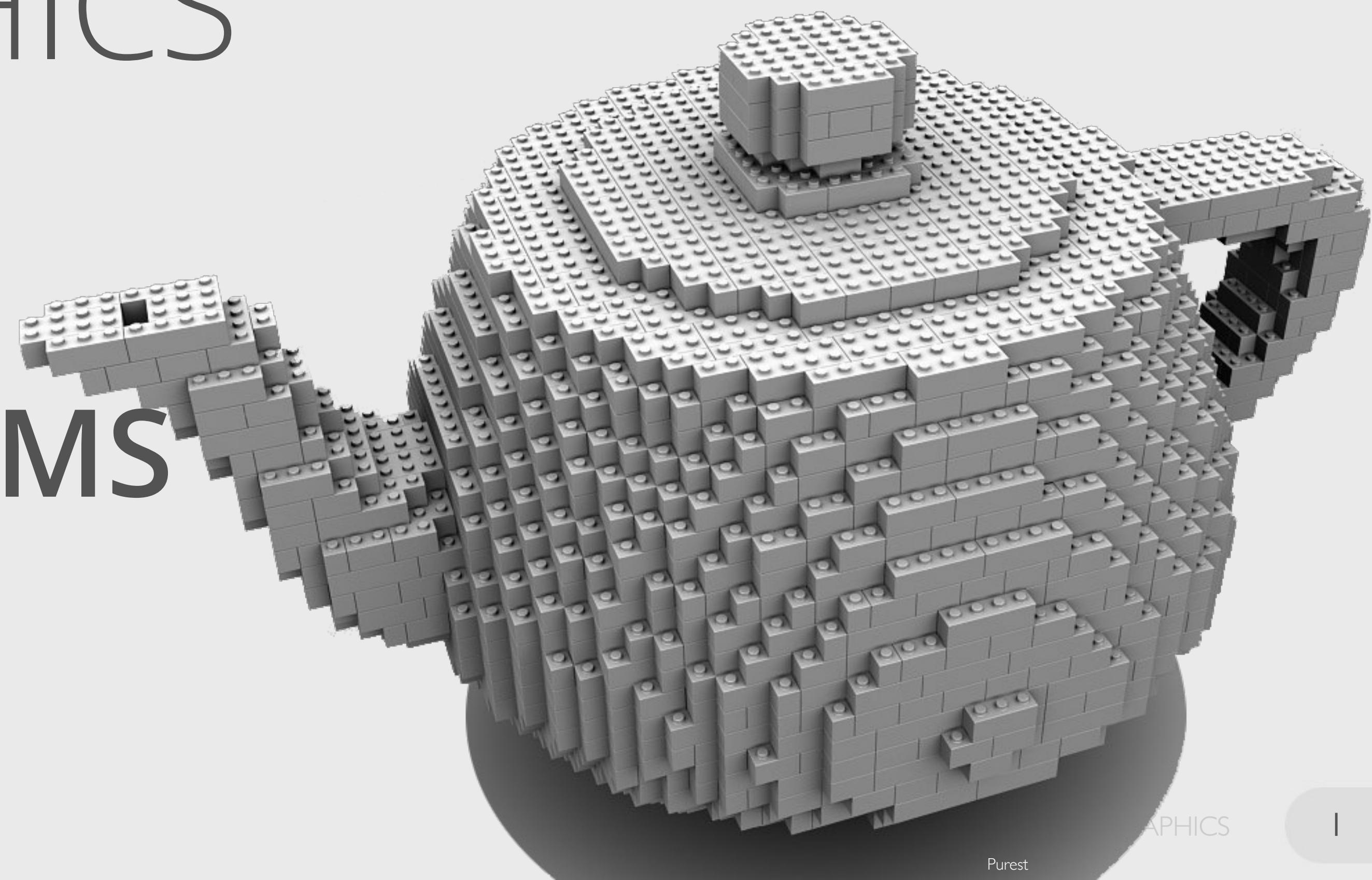


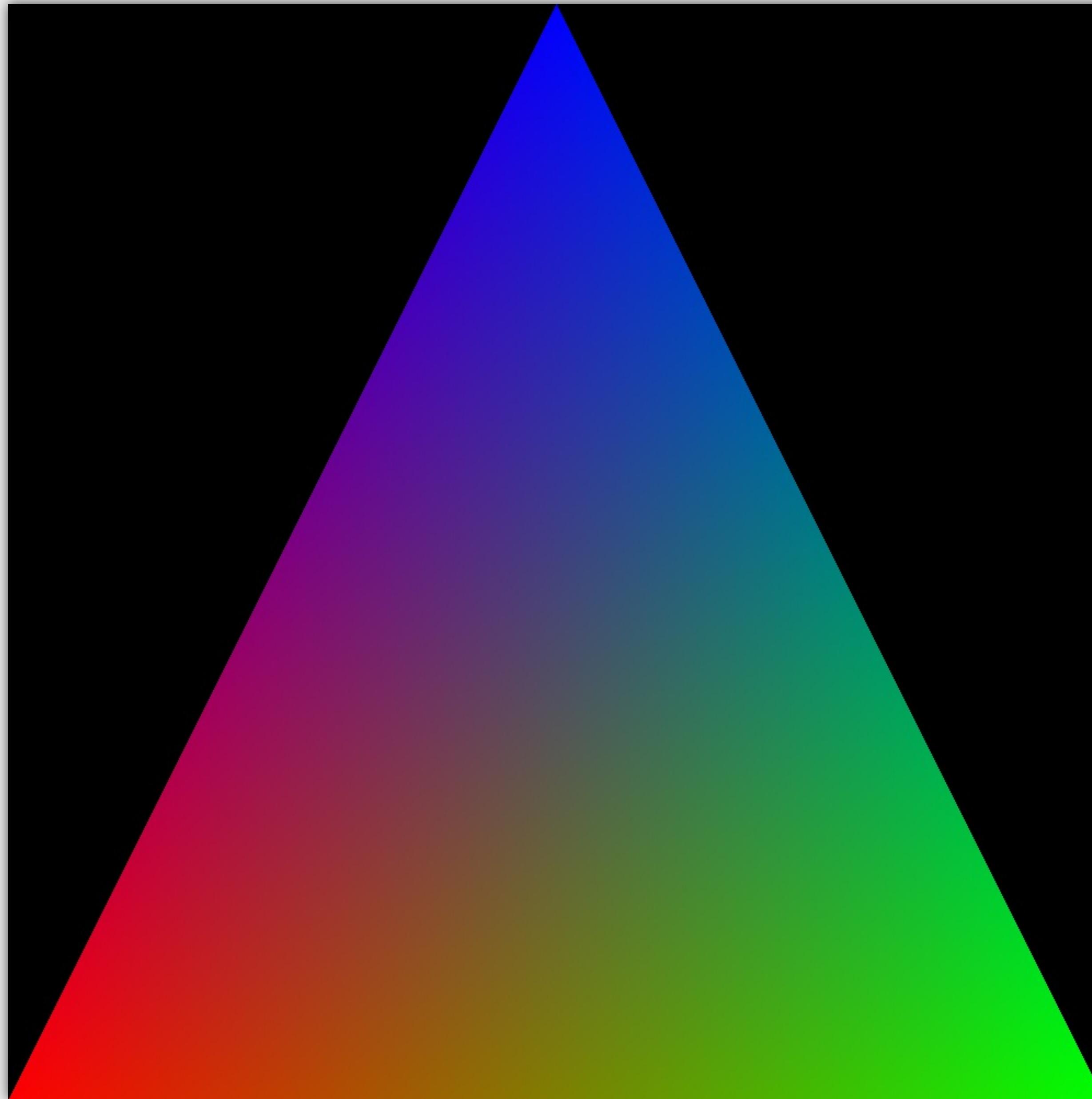
MULTIMEDIA & COMPUTER GRAPHICS

Dr. Arturo Jafet Rodríguez Muñoz

Ing. Bernardo Moya de la Mora

COORDINATE SYSTEMS





BARYCENTRIC COORDINATES

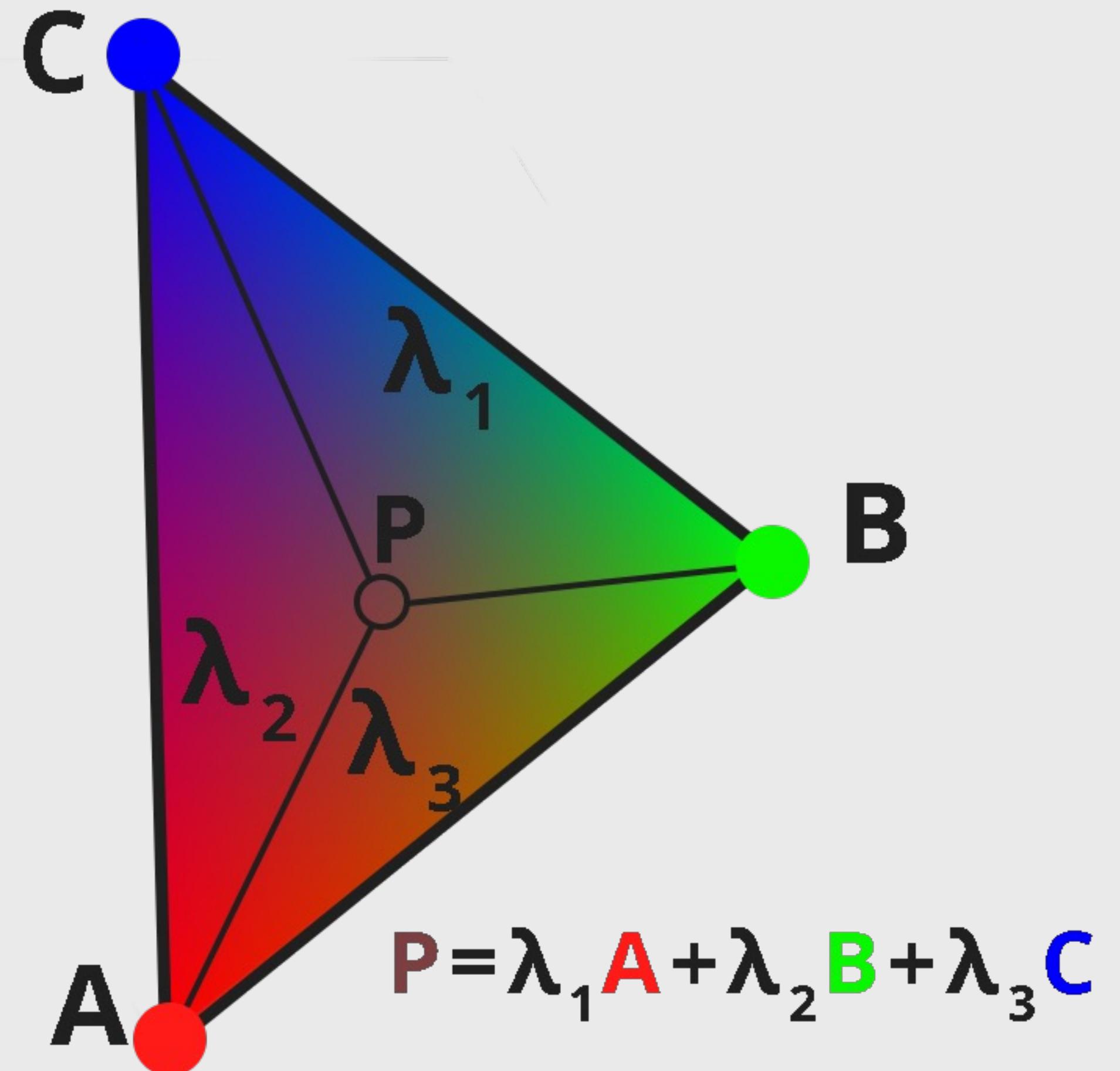
The coordinates are normalized

$$\lambda_1 + \lambda_2 + \lambda_3 = 1$$

$$r = \lambda_1 r_A + \lambda_2 r_B + \lambda_3 r_C$$

$$g = \lambda_1 g_A + \lambda_2 g_B + \lambda_3 g_C$$

$$b = \lambda_1 b_A + \lambda_2 b_B + \lambda_3 b_C$$



BARYCENTRIC COORDINATES

Conversion from Cartesian

$$\lambda_1 = ((y_B - y_C)(x - x_C) + (x_C - x_B)(y - y_C)) / ((y_B - y_C)(x_A - x_C) + (x_C - x_B)(y_A - y_C))$$

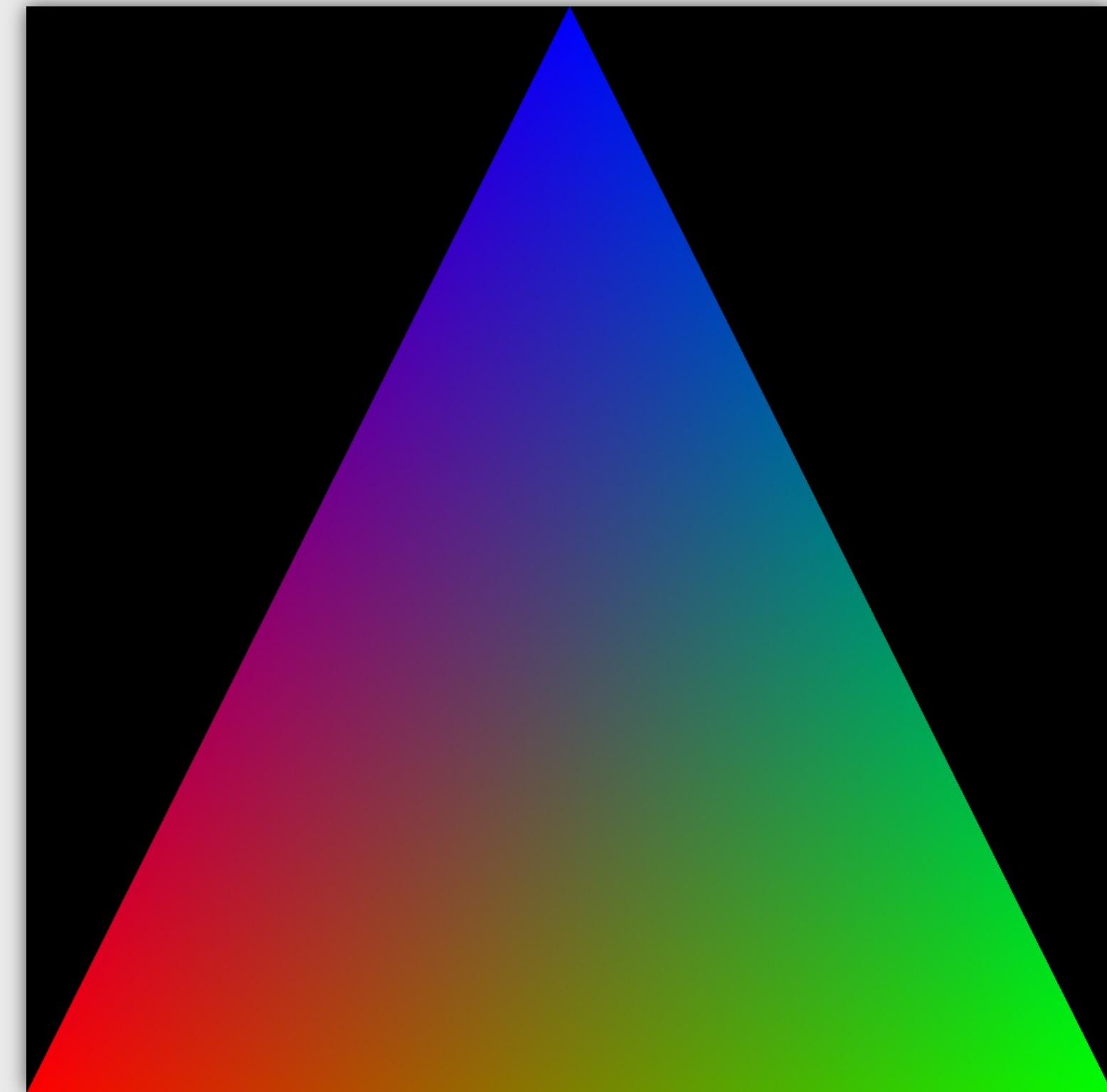
$$\lambda_2 = ((y_C - y_A)(x - x_C) + (x_A - x_C)(y - y_C)) / ((y_B - y_C)(x_A - x_C) + (x_C - x_B)(y_A - y_C))$$

$$\lambda_3 = 1 - \lambda_1 - \lambda_2$$



CLASSWORK 02

Create an image that uses barycentric coordinates to color the combinations from RGB



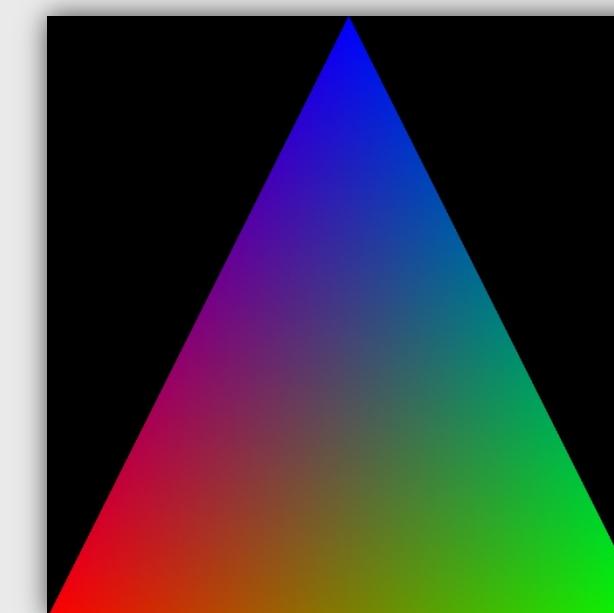
BARYCENTRIC COORDINATES

Conversion from Cartesian

$$\lambda_1 = ((y_B - y_C)(x - x_C) + (x_C - x_B)(y - y_C)) / ((y_B - y_C)(x_A - x_C) + (x_C - x_B)(y_A - y_C))$$

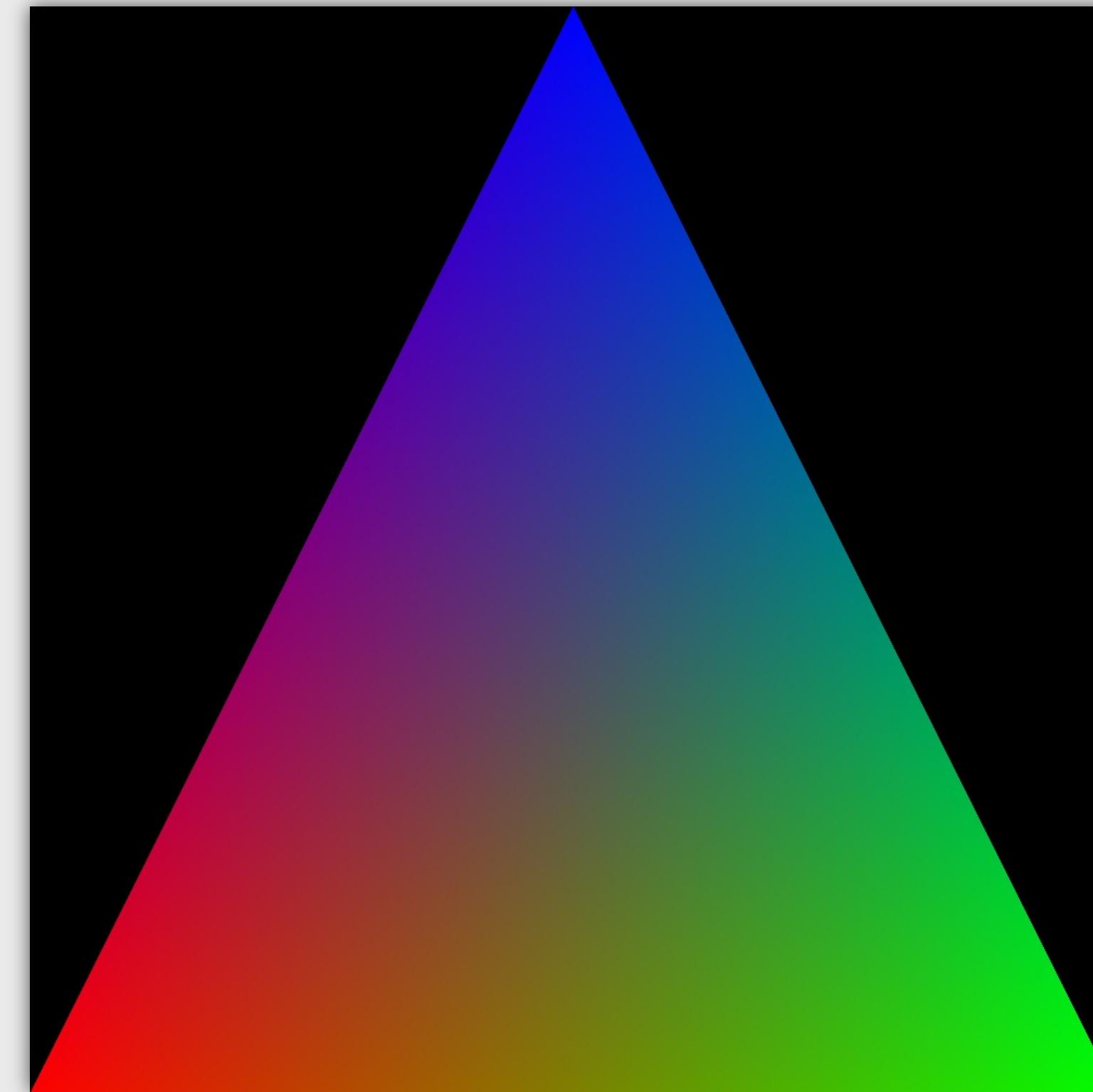
$$\lambda_2 = ((y_C - y_A)(x - x_C) + (x_A - x_C)(y - y_C)) / ((y_B - y_C)(x_A - x_C) + (x_C - x_B)(y_A - y_C))$$

$$\lambda_3 = 1 - \lambda_1 - \lambda_2$$

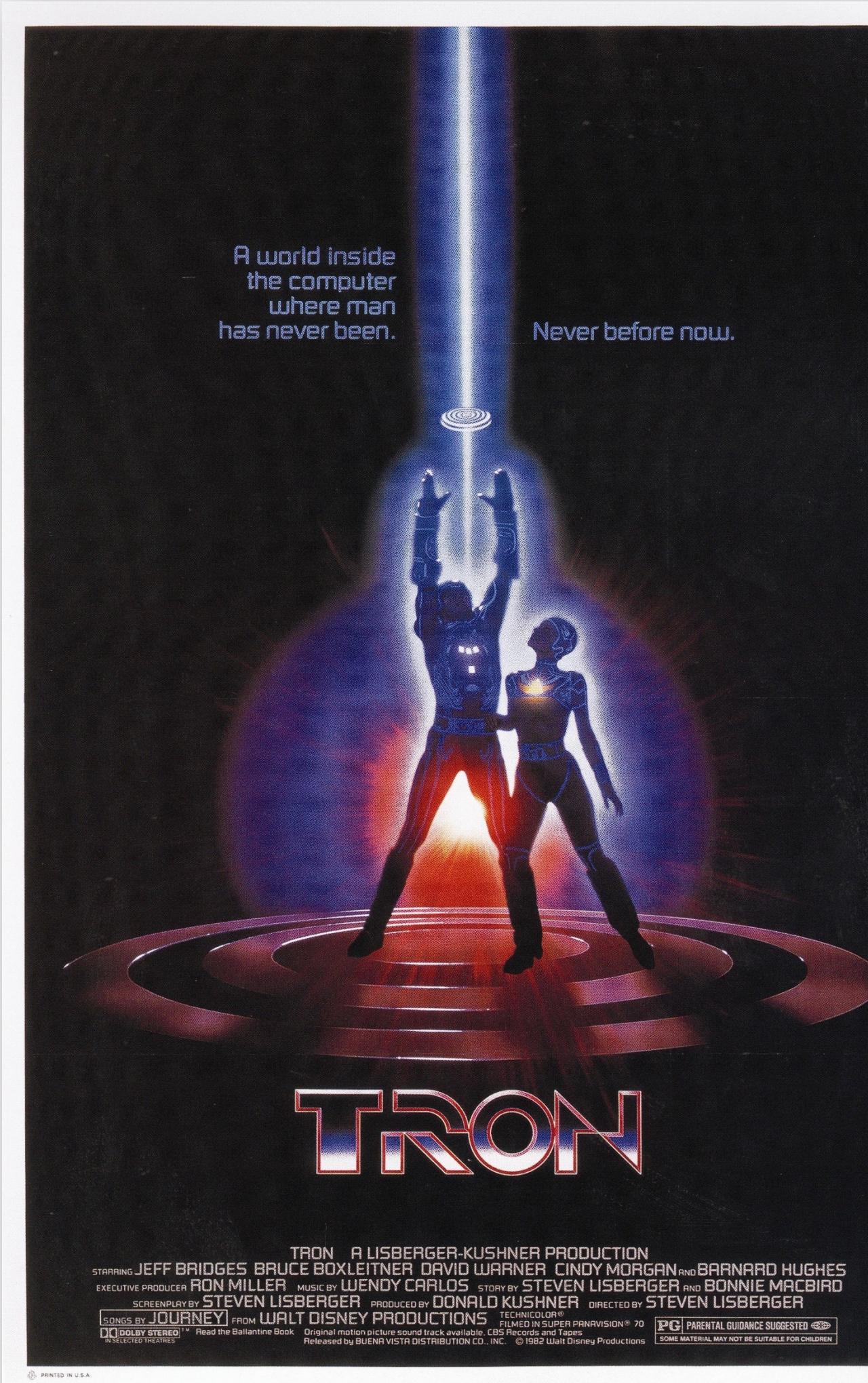


SOLUTION CLASSWORK

Create an image that uses barycentric coordinates to color the combinations from RGB



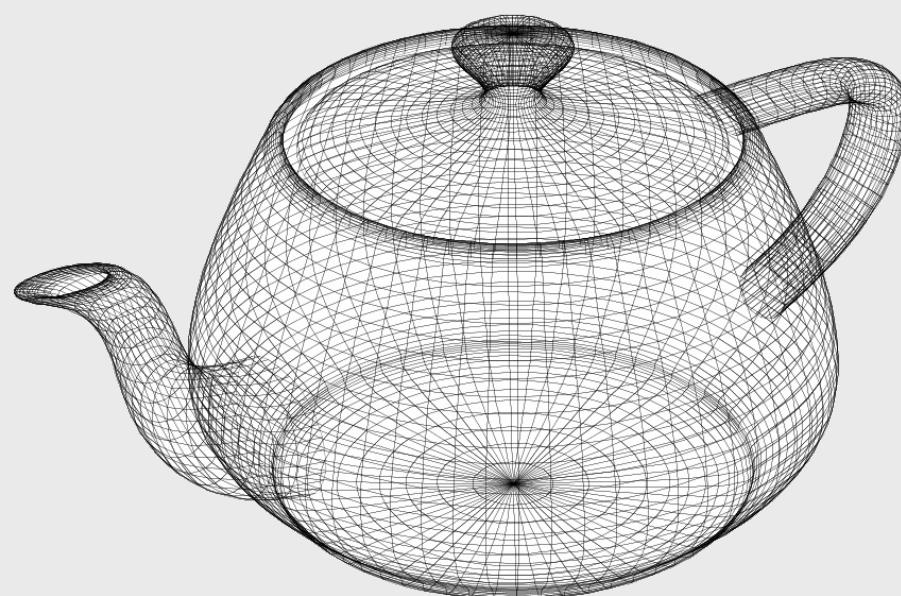
REPORT - TRON



Normal mode (250 pts)
Create a 2 minute video recording yourself. Talk about your reflections on both movies considering this course

Deadline: Tuesday Feb 11, 03.59pm

REFLECTION



Pato

Charly

Carlos S

Dubin

Emiliano

Jaime

Valeria

Kenzo

Rodrigo

Cracklitos

Omar

Soto

Álvaro

Fátima

