Name:
Due Date:
Period:

AP CSA
The PixLab Graded Project
15 points

Complete the method `static Picture anselAdams(Picture pix).` **(5pts)**

Ansel Adams is a famous photographer, known for his deeply contrasted black and white images like the *Jeffrey Pine* shown above. Complete the `anselAdams` method so that it will take in a picture, convert it into a black and white image using the `grayscale` method from PixLab Activity A5, and enhance the contrast by making the darkest 25% of the grayscale image 5 shades darker and the lightest 25% of the image 5 shades lighter.

- Must use the grayscale method.
- Access the 2D array of Pixel objects from pix
- Correctly process the Pixel objects to increase the contrast by adjusting the darkest and lightest Pixels.

Complete the methods `private static void primaryColors(Picture pix)` and `private static void rotateColors(Picture pix)` to make the `andyWarhol` method work. **(10pts Total)**

Andy Warhol was an American artist well known for his pop art. His works include paintings of Campbell's soup cans and the *Marilyn Monroe Diptych* as shown above. The `andyWarhol` method will take any picture, scale it down to 25% and create a collage of 4 versions (not 6 like the image shown) of the image in the style of Andy Warhol's Marilyn Monroe. Notice, more of the shading and detail of the original image is wiped out. For this method to work you must complete the helper method `primaryColors` which will convert a picture to just include the primary colors of WHITE, BLACK, RED, BLUE, GREEN, MAGENTA, YELLOW, and CYAN. And you must complete the helper method rotateColors which will swap primary colors.

private static void primaryColors(Picture pix) **(5pts)**

- Accesses the 2D array of Pixel objects from pix
- Correctly processes each Pixel object to be the nearest primary color
    - For this project a primary color is any color such that its RGB values are either 0 or 255

private static void rotateColors(Picture pix) **(5pts)**

- Accesses the 2D array of Pixel objects from pix
- Uses the given array of primary colors
- Processes the Pixel objects to rotate from one primary color to the next based on the values in the given array of primary colors

Place your PixMethod.java file into a folder with your name (Lastname Firstname). Submit a compressed (.zip) file of your folder in Google Classroom.

Submit this document with your name on it to be used as a scoring rubric.