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% Steps followed.

%1. Loading the image using imread().
%2. Convert the image into grayscale, if the image is in RGB format.
%3. Temporarily resize the image to 32 grayscale levels by dividing the
total number of
    %levels (256) by 32 i.e having 8 grayscale levels with 32 intervals.
% The "Nearest" in the imresize refers to selecting the closest pixel from
% the original image to either enlarge or reduce the image size.
%4. Resizing the image back to its original format by apply the quantisation
    %effect by mapping the temporarily resized image values onto original
    %image.
%5. Display the original image and the Quantised image using imshow().

img = imread('triangles.jpeg');

rgb_gray = rgb2gray(img);

gray32 = imresize(rgb_gray, [size(rgb_gray, 1), size(rgb_gray, 2)] / 8,
'nearest');
ori_quantized_img = imresize(gray32, size(rgb_gray), 'nearest');

subplot(1, 2, 1);
imshow(rgb_gray);
title('Original Image');

subplot(1, 2, 2);
imshow(ori_quantized_img, []);
imwrite(ori_quantized_img, "332_grayscale.jpg")
title('Image Quantized to 32 grayscale Levels');

```

Original Image

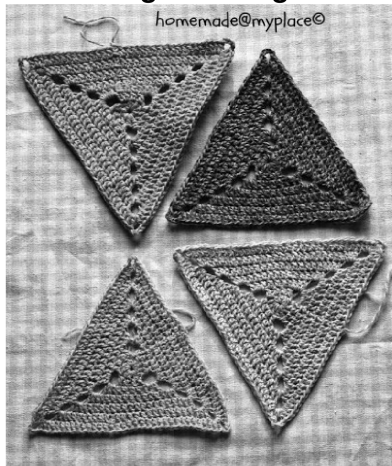


Image Quantized to 32 grayscale Levels

