Bit Plane Slicing

a	Take a RGB input image and convert it into a grayscale image.	01
b	Extract the dimension of the grayscale image (say R).	01
c	For every column of bit depth of R, starting from the LSB, take the column number of the bit positions (say k) of R. **Example: If R is an 8-bit image, for the MSB bit position, k should be 7.**	02
d	For every k, calculate X, where X is 2 to the power of that column number. **X=**2^k	02
e	Calculate the bitwise and operation for every pixel of the image using the following function. S= bitand(A,B) *****where A and B are unsigned integers or arrays of unsigned integers.** **Let, A be the input image (R), and B be X.**	03
f	Show the output images (S) for every bit position. It is recommended to use the subplot function for showing the output images.	01