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**Part A: Answers**

1. Red – 0.5 intensity that means red value is 127

Green – 1 intensity that means green value is 255

Blue – 0.5 intensity that means blue value is 127

rgb (127, 255, 127) gives the mint green colour

2. We can not calculate the gray level values in the hue region because hue value varies from 0 to 360 but the given number bits is 8. So, we can store only 0-255. So, this data is insufficient.
3. 255 region stays 255 and 0 region stays 0 without any change
4. 170 region stays the same as 170 gray scale and 85 region stays same as 85 because the intensity calculation is the ( (R+G+B)/3) which is similar to the gray scale calculation.
6. After converting the rgb image to his image we get

Green (0,255,0) => (120,1,85)

Red (255,0,0) => (0,1,85)

Blue (0,0,255) => (240,1,85)

1. Blurring show no effect on saturated component of this image because every value of the saturated component is 1 and the resultant of the blurring vale is 1
2. Every region stays same except the boundary of the regions because different colours have different hue values due to that colour changes.

Red and Green border looks like olive colour

Blue black border looks like teal colour