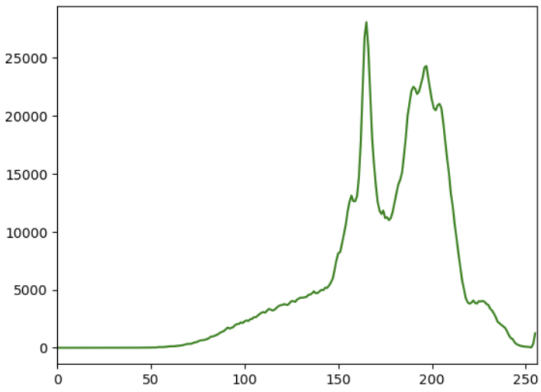
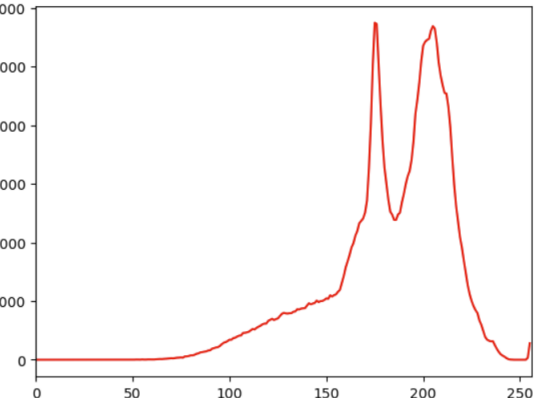
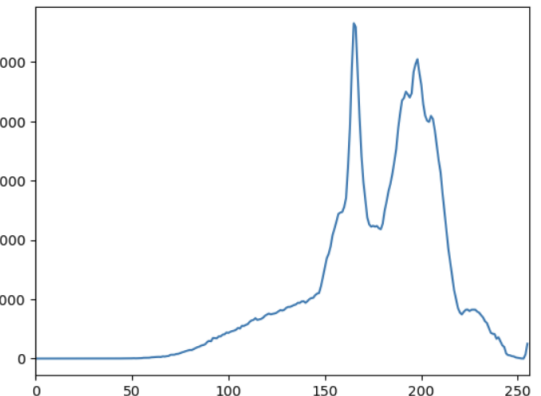


Task 1.2C Answer sheet

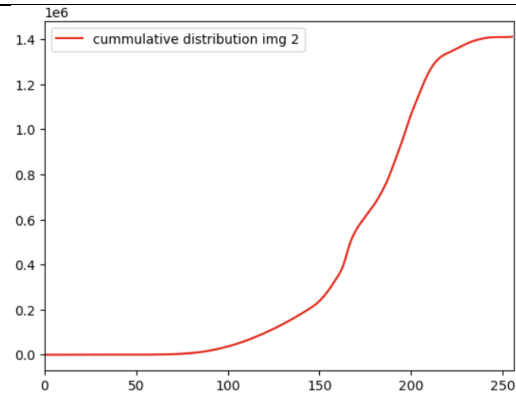
Fill in the “**Results**” column with relevant results

Notes:

- Examples are given for illustration purposes only and need to be replaced by your own results.
- Missing any required results will result in a re-submission.

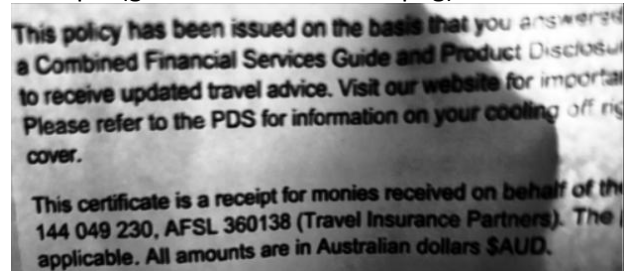
Results	
Histogram of the green channel of img2.png	 <p>A line graph showing the histogram of the green channel of img2.png. The x-axis represents intensity from 0 to 255, and the y-axis represents frequency from 0 to 25,000. The curve starts near zero, rises to a first peak of approximately 27,000 at intensity 165, dips to about 12,000 at intensity 180, and then rises to a second peak of approximately 24,000 at intensity 200, before falling back to near zero at intensity 255.</p>
Histogram of the red channel of img2.png	 <p>A line graph showing the histogram of the red channel of img2.png. The x-axis represents intensity from 0 to 255, and the y-axis represents frequency from 0 to 30,000. The curve starts near zero, rises to a first peak of approximately 28,000 at intensity 175, dips to about 12,000 at intensity 190, and then rises to a second peak of approximately 28,000 at intensity 205, before falling back to near zero at intensity 255.</p>
Intensity histogram of img_gray for img2.jpg (i.e., intensity histogram of input image)	 <p>A line graph showing the intensity histogram of img_gray for img2.jpg. The x-axis represents intensity from 0 to 255, and the y-axis represents frequency from 0 to 25,000. The curve starts near zero, rises to a first peak of approximately 27,000 at intensity 165, dips to about 12,000 at intensity 180, and then rises to a second peak of approximately 24,000 at intensity 200, before falling back to near zero at intensity 255.</p>

Cumulative intensity distribution of
img_gray for img2.jpg

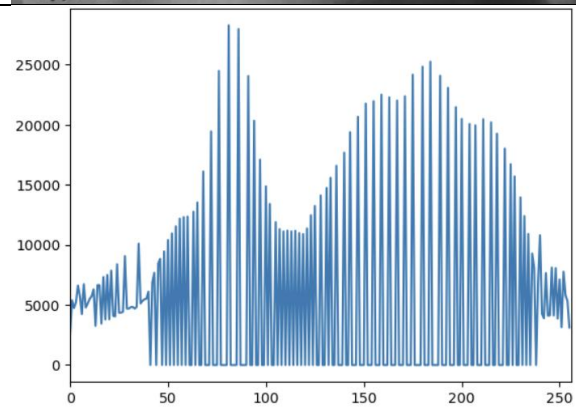


Result of histogram equalisation (i.e.,
img_equ) for img2.jpg

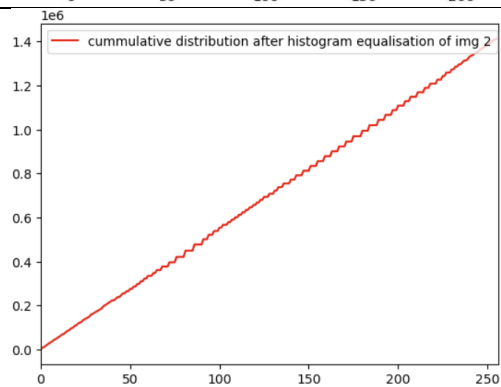
Example (generated from Lenna.png)



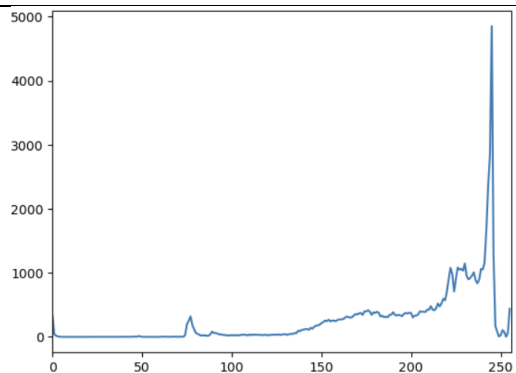
Intensity histogram of img_equ for
img2.jpg (i.e., intensity histogram of output
image)

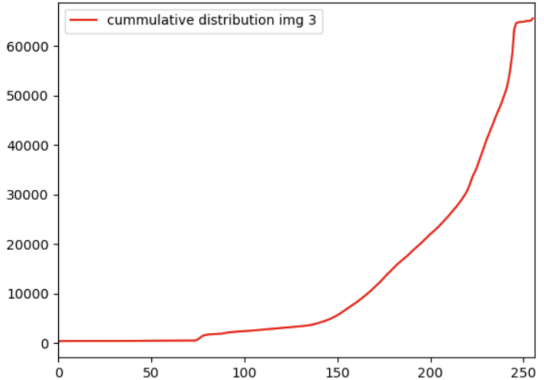

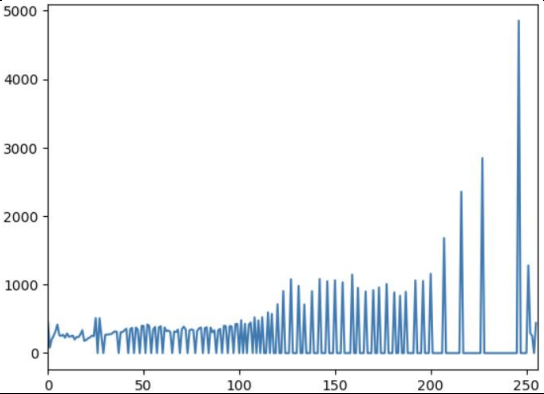
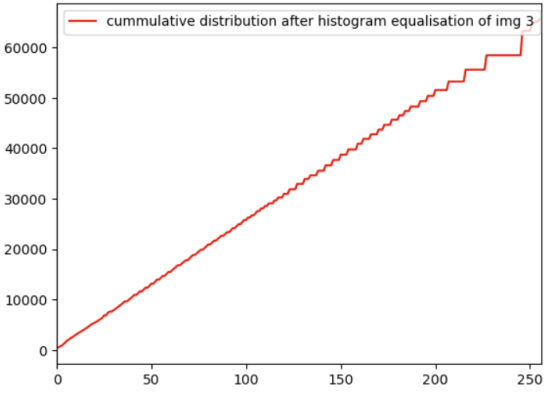


Cumulative intensity distribution of
img_equ for img2.jpg



Intensity histogram of img_gray for
img3.jpg (i.e., intensity histogram of input
image)



Cumulative intensity distribution of img_gray for img3.jpg	 <p>A line plot showing the cumulative intensity distribution for 'img 3'. The x-axis represents intensity from 0 to 250, and the y-axis represents frequency from 0 to 60,000. The curve starts at (0,0) and remains near zero until approximately x=75, then rises steadily to about 25,000 at x=200, and finally rises sharply to approximately 60,000 at x=250. The legend indicates 'cummulative distribution img 3'.</p>
Result of histogram equalisation (i.e., img_equ) for img3.jpg	 <p>A grayscale medical X-ray image of a human torso, showing the ribcage and internal organs. The image has been processed with histogram equalization, resulting in enhanced contrast and detail visibility.</p>
Intensity histogram of img_equ for img3.jpg (i.e., intensity histogram of output image)	 <p>A bar chart representing the intensity histogram of the equalized image. The x-axis shows intensity from 0 to 250, and the y-axis shows frequency from 0 to 5,000. The distribution is relatively uniform across the intensity range, with a slight increase in frequency towards the higher intensity values (above 200).</p>
Cumulative intensity distribution of img_equ for img3.jpg	<p>Example (generated from Lenna.png)</p>  <p>A line plot showing the cumulative intensity distribution after histogram equalization for 'img 3'. The x-axis represents intensity from 0 to 250, and the y-axis represents frequency from 0 to 60,000. The curve is a nearly straight line from (0,0) to (250,60,000), indicating a uniform distribution of intensities. The legend indicates 'cummulative distribution after histogram equalisation of img 3'.</p>
χ^2 -distance between img_gray and img_equ for img2.jpg	1806031.2
KL-divergence between img_gray and img_equ for img2.jpg	2754.872556770552
χ^2 -distance between img_gray and img_equ for img3.jpg	97802.65

KL-divergence between img_gray and img_equ for img3.jpg	2780.194770783947
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