Computer Graphics Exercise

1. Compute the size of a 640\*480 image at 240 pixels per inch.
2. Compute the resolution of a 2\*2 inch image that has 512\*512 pixels.
3. Determine the resolution in the x and y directions for the video monitor in use on your system.
4. If an image has a height of 4 inches and an aspect ratio of 2.5, what is its width?
5. If an image has a height of 3 inches and an aspect ratio of 2, what is its width?
6. Calculate the pixel positions along a straight line between (3, 3) and (9, 21) using Direct line drawing algorithm.
7. Calculate the pixel positions along a straight line between (4, 4) and (10, 22) using Direct line drawing algorithm.
8. Calculate the pixel positions along a straight line between (5, 5) and (11, 23) using Direct line drawing algorithm.
9. Is it possible to draw a line by using the two endpoints (5, 5) and (23, 11) using Direct line drawing algorithm? explain
10. The endpoints of a given line are (3, 1) and (8, 5). Compute each value of x and y using DDA line drawing algorithm.
11. The endpoints of a given line are (3, 2) and (9, 6). Compute each value of x and y using DDA line drawing algorithm.
12. The endpoints of a given line are (2, 3) and (6, 9). Compute each value of x and y using DDA line drawing algorithm.
13. The endpoints of a given line are (3, 4) and (7, 10). Compute each value of x and y using DDA line drawing algorithm.
14. The endpoints of a given line are (4, 3) and (10, 7). Compute each value of x and y using DDA line drawing algorithm.