



Sample Exam

1. True or False:

- a. Vector displays are the right choice for high resolution shapes.
- b. The framebuffer contains the Z coordinate of the pixels to track order.
- c. Gamma correction is affected by the lighting model

2. Complete the following:

- a. Buckets in the edge table are sorted based on while the linked list of the active edge table is sorted based on
- b. 2-D rotation is around a while 3-D rotation is around a
- c. Projection transformation converts from coordinate to coordinate

3. What are the drawbacks for using Z-buffering for hidden surface removal?

4. Mention the problems caused by concave polygons compared to convex ones.

5. Prove that rotation has the property $R(\theta_1)R(\theta_2) = R(\theta_1 + \theta_2)$.

6. Use Bresenham's line drawing algorithm to draw a line between the two endpoints $P_1=(8,6)$ and $P_2=(4,4)$.

7. Apply Sutherland-Hodgman on the figure in the order of boundaries (right, top, left, bottom):

