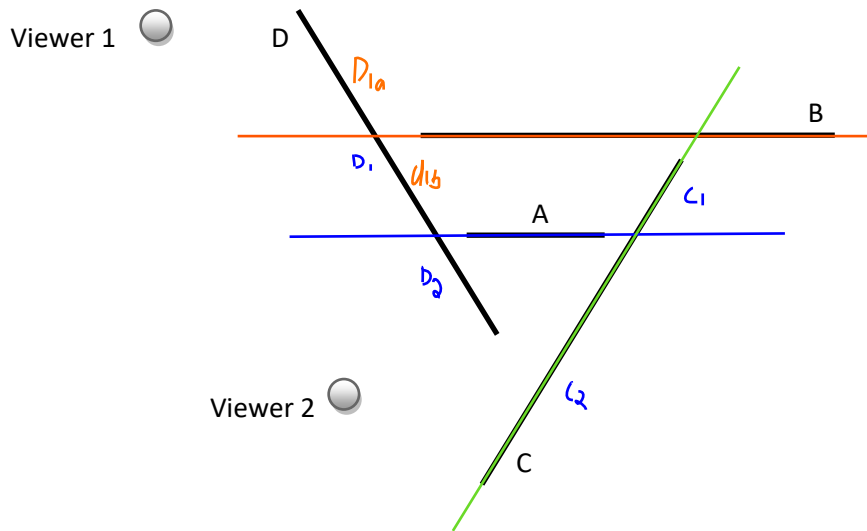
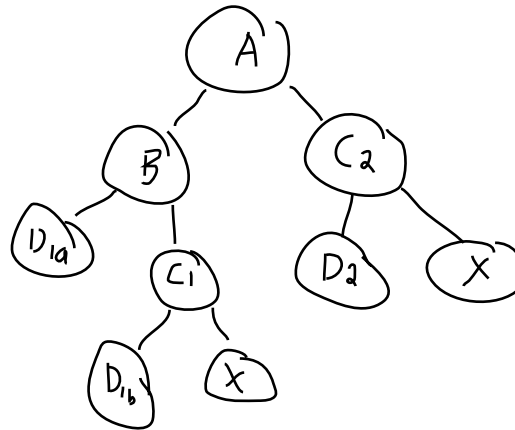


BSP Worksheet

1. The following diagram is the cross section of a set of polygons in 3D space.



- a. Construct their BSP tree, in the priority of $A > B > C > D$. Draw construction lines to help you in the diagram.



- b. The two dots are the positions of Viewers 1 and 2. Give the order of polygons drawn in the BSP tree when you view from the two positions.

1: c2, d2, a, c1, d1b, b, d1a (in order the opposite way)
 2: d1a, b, c1, d1b, a, c2, d2 (in order the normal way)

start from root

- for each node there is a 1 polygon and 2 sub-spaces in the 2 children

1_ recursively draw the sub-tree behind the polygon from the viewpoint p

2_ Draw the polygon

3_ Repeat