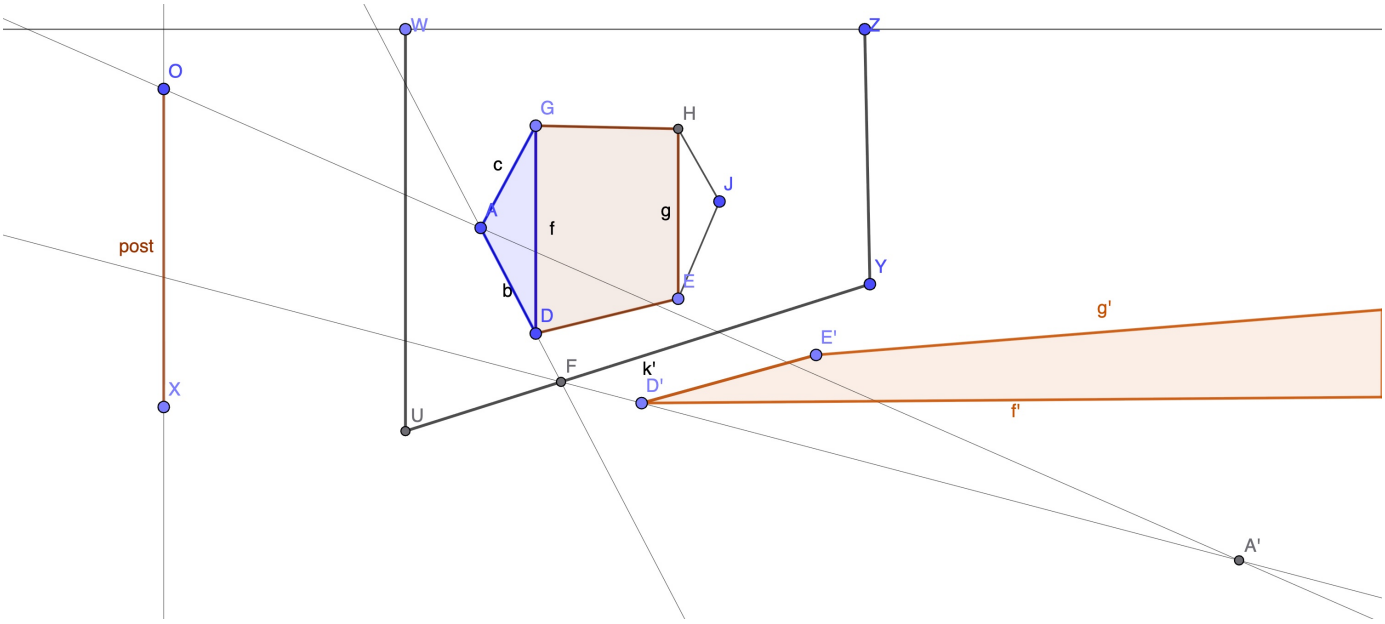
Part (b): The main task is to locate the shadow A' of the point A. Triangles $\triangle ADE$ and $\triangle A'D'E'$ are perspective from the point O so by Desargues' theorem, they are perspective from a line; this line k' is just the base of the wall. [Why? Because in the 3-D world, the intersection k of the planes of the two triangles is the base of the wall; hence, in the picture, the image k' of k is the line, from which the two triangles are perspective.]



Fortunately, k' is given in the picture. Let $Y = AD \cdot k'$. Then $A'D'$ also passes through Y, hence A' lies on the line YD'. Also, A' lies on OA. Thus, $A' = YD' \cdot OA$. We can repeat this procedure for any other point B in the segment b, finding its shadow, B'. The shadow of the segment b will then be on the ray $A'B'$, ending somewhere off the page to the right.