



1. Given point  $A(2,1,3)$  rotate it  $90^\circ$  in the counterclockwise direction along a tip axis that goes through point  $B(5,2,0)$

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2. Given the points  $A(2,1,0)$  and  $B(5,0,3)$ :

a) rotate the line  $AB$   $30^\circ$  in the clockwise direction along a vertical axis that goes through point  $C(7,1,1)$

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b) rotate the line  $AB$  to transform it in a horizontal line  
c) rotate the line  $AB$  to transform it in a frontal line

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d) rotate line AB to make it parallel to the R.L.

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3. Consider the plane such that its vertical projection trace forms  $30^\circ$  with respect to the R.L. and its horizontal one  $-40^\circ$ . Rotate the plane to transform it in a profile plane

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4. Find the distance between point A(70,20,30) and the plane  $\alpha$ , whose vertical trace has  $45^\circ$  with respect to the R.L. and its horizontal trace  $-40^\circ$ . Both traces join in point (0,0,0)

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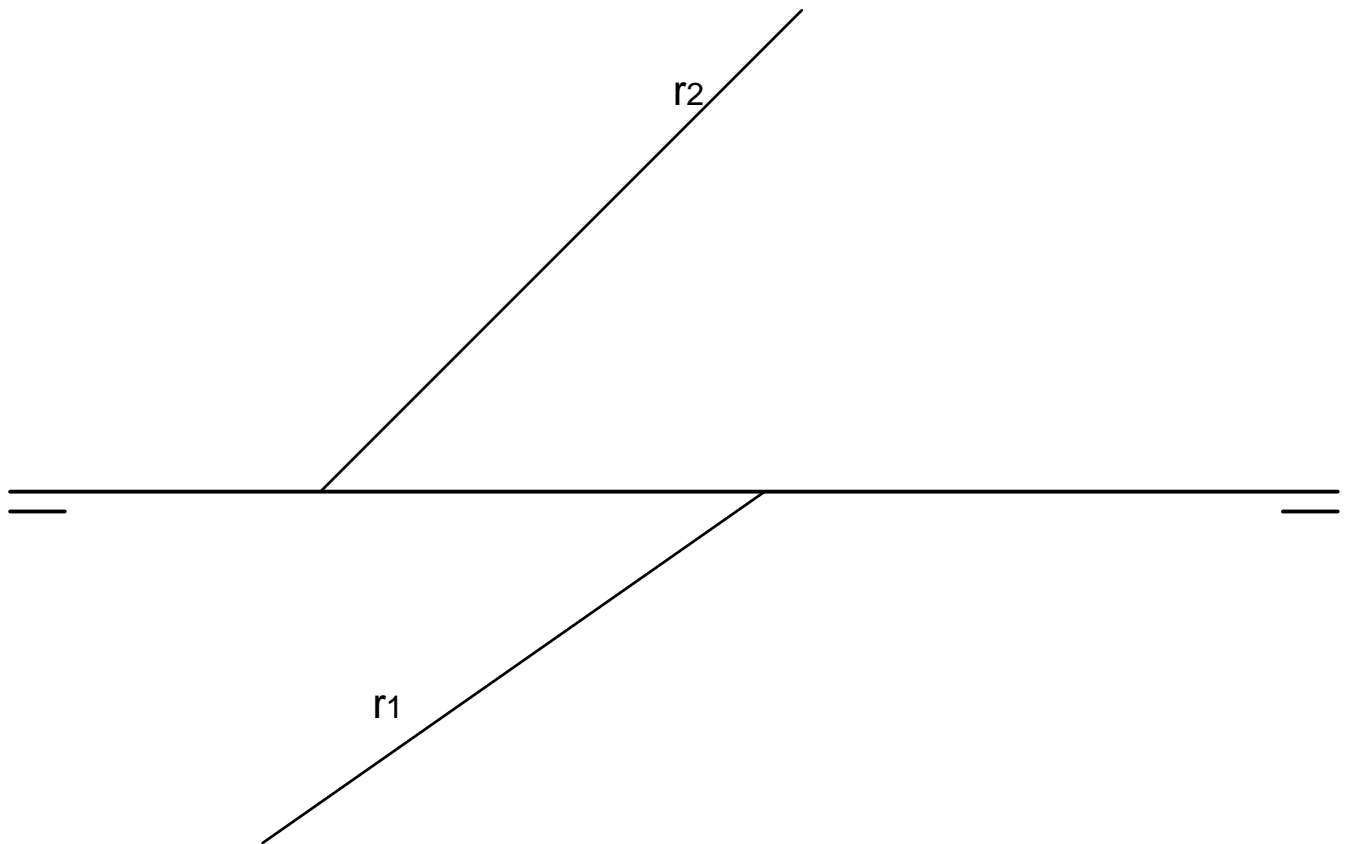
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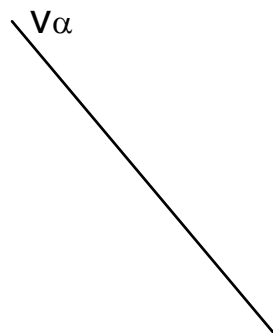
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5. Transform the line  $r$  in one which is parallel to the R.L. by means of change of planes.



6. Transform plane  $\alpha$  in a horizontal one by means of change of planes



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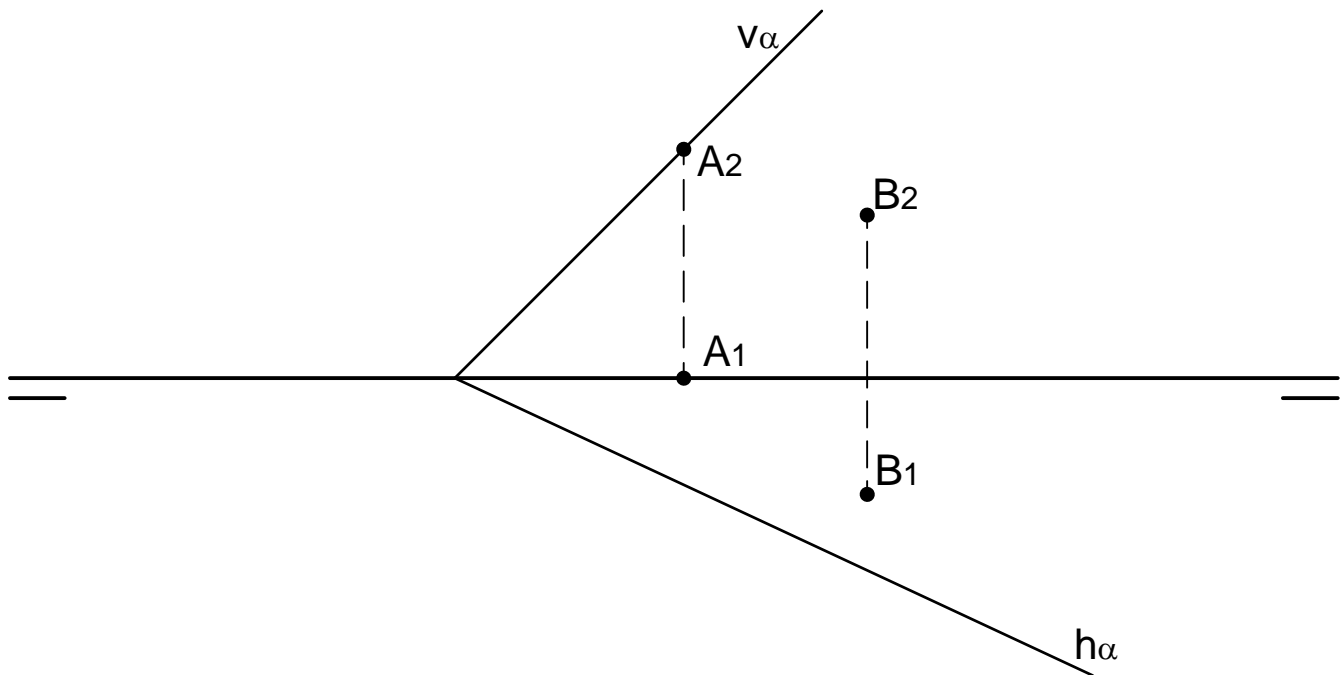
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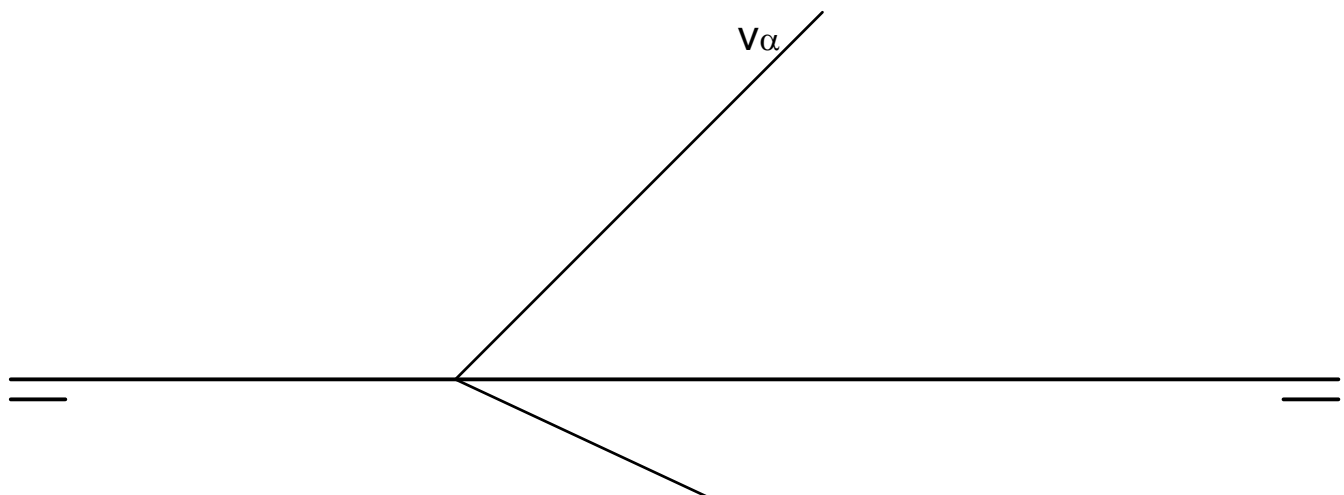
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7. Find the true length of segment AB which belongs to plane  $\alpha$



8. Draw over plane  $\alpha$  a segment of 30mm length



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