Construction Lines in Orthographic Projection

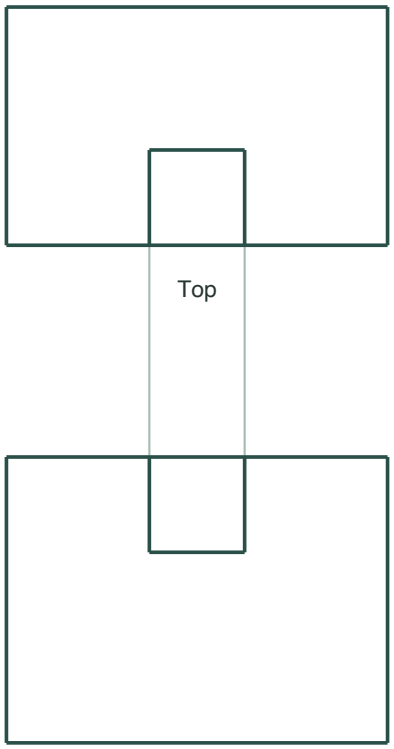
Reference | Worked example | A4

Original prompt

Front view: a block with a notch in its top edge. Build the top view using construction lines and check the notch width.

Given solid

Model: 8 wide, 5 deep, 6 high. The 2-unit notch spans x = 3 to 5, reaches 2 units back and stops at height 4.



Answer

Read the two notch sides at x = 3 and x = 5 in front. Project vertically up to the plan, draw the outer rectangular footprint, and show the visible U of the notch continuing 2 units back from the front edge.

Reasoning

Width transfers vertically between front and top. The height change at the notch does not change the outer plan footprint because the notch retains a lower floor.

Check

Both guides must bound the same 2-unit notch width. Check the notch also goes 2 units back and the outer footprint stays rectangular.