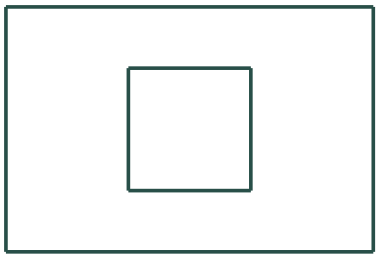
Draw Missing Orthographic View

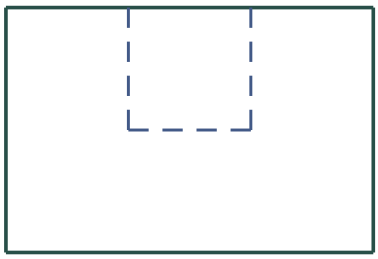
Answer | Task 1 of 4 | LETTER

Original prompt

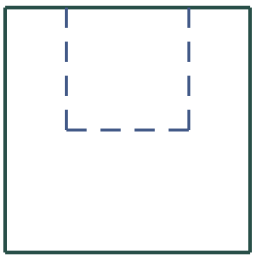
Task 1: Given front and top views of a block with a rectangular notch cut from the top, draw the missing right side view.



Top



Front



Right side

Answer

Right view: the outer block is a rectangle. The centered blind top pocket is hidden from the right; show its projection as a hidden U made of two dashed returns from the top boundary and one dashed floor edge. The top boundary itself coincides with the block outline.

Reasoning

The front and top views specify the same centered blind pocket. From the right, solid material covers its interior edges; its front/back positions project from the top view and its floor height from the front view, producing the hidden U.

Check

Check that the two dashed returns use the pocket's depth limits from the top view and that the dashed floor matches its depth from the front view. Keep the U inside the outer rectangle and do not draw a separate top segment.

Draw Missing Orthographic View

Answer | Task 2 of 4 | LETTER

Original prompt

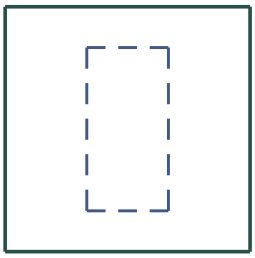
Task 2: Given front and right side views of a block with a vertical slot on its left face, draw the missing top view.



Top



Front



Right side

Answer

Top view: draw the outer rectangle and the finite recess open at the left side face. Show the hidden recess with two dashed returns from the left boundary joined by one dashed inner back edge.

Reasoning

The slot is a finite recess in the left face, not a through-slot. The top surface hides its interior; the front and right given views fix its vertical and depth limits, while the recess's finite reach appears as the two returns and back edge in the plan.

Check

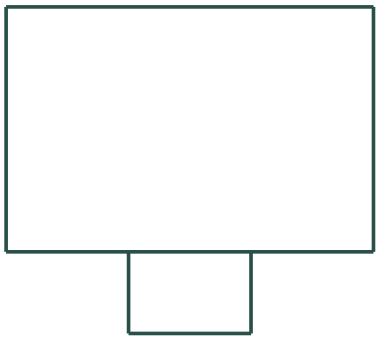
Check that both returns begin at the left boundary, end at the same inner back edge, and align with the recess extents shown in the given front and right views. All three recess edges are hidden beneath the top face.

Draw Missing Orthographic View

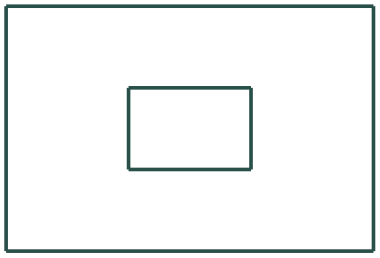
Answer | Task 3 of 4 | LETTER

Original prompt

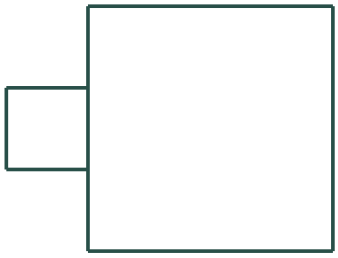
Task 3: Given top and right side views of a block with a raised rectangular boss on its front face, draw the missing front view.



Top



Front



Right side

Answer

Front view: draw the block's outer rectangle and a smaller raised-boss rectangle centered on the front face. All front-view boss boundaries are visible and solid.

Reasoning

The selected boss is centered on the front face. Its width and side positions transfer from the top view, and its height and vertical position transfer from the right view; from the front its raised outline is visible.

Check

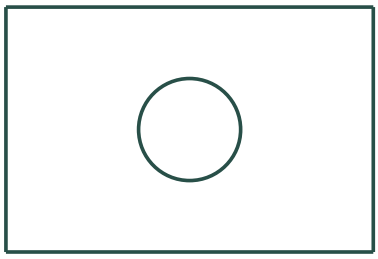
Check that the boss is centered within the outer front rectangle, its width agrees with the top view, and its height and vertical position agree with the right view.

Draw Missing Orthographic View

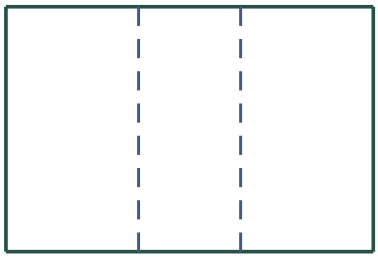
Answer | Task 4 of 4 | LETTER

Original prompt

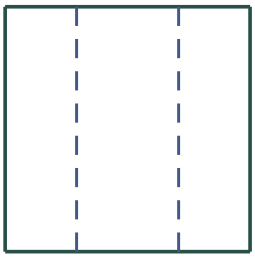
Task 4: Given front and top views of a block with a through-hole drilled vertically, draw the missing right side view.



Top



Front



Right side

Answer

Right view: draw the outer rectangle and exactly two vertical dashed tangent lines for the centered round through-bore. The bore opens at the top and bottom, not at the right side, so no solid circular opening appears in this view.

Reasoning

The bore's circular opening and diameter are shown in the top view. Looking from the right, the bore is inside the block; its two vertical tangent edges are hidden by the side material and appear dashed.

Check

Check that the two dashed tangents are centered and their separation matches the bore diameter in the top view. Their vertical extent must agree with the full-height through-bore in the front view.