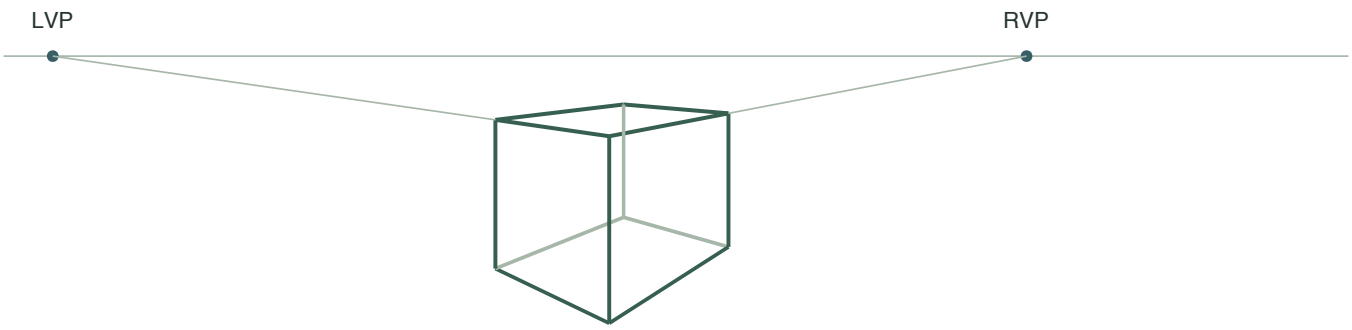
Box Drawing Exercises

Answer | Drill 1 of 4 | LETTER

Original prompt

Drill 1: On the blank plate, draw a horizon line, mark LVP and RVP, draw a front vertical edge, and project a complete box.



The top and bottom construction rings share the two points.

Answer

The near upright stands at the front of two matching perspective rings. The pairs of level edges at top and bottom run to their respective points. Light rear and lower lines complete the hidden parts of the construction.

Reasoning

The top and bottom guides begin at different heights and share the same two directions. Extending them sets the ring corners at the chosen depth. Pale hidden lines distinguish the construction from the visible surfaces.

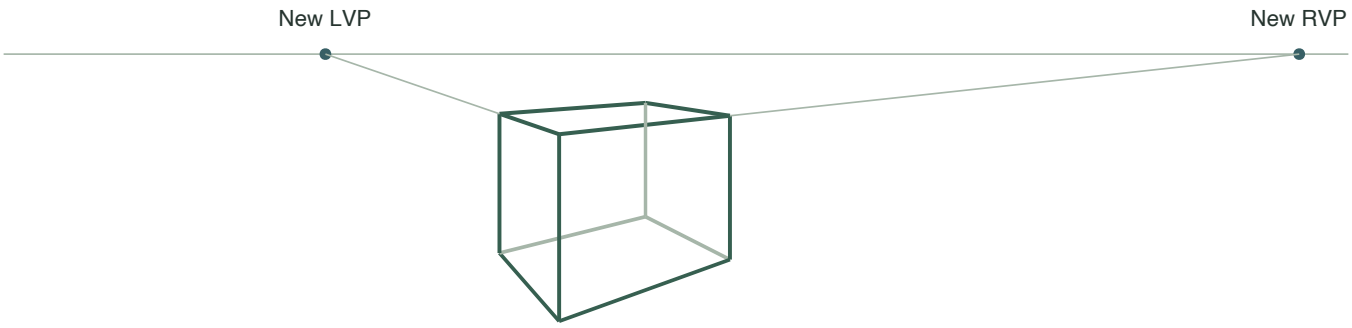
Check

Every left-receding edge aims at LVP, every right-receding edge aims at RVP, and all vertical edges are parallel.

Box Drawing Exercises

Original prompt

Drill 2: Rotate the box from Drill 1 and move its near vertical farther left on the sheet. Keep the same box dimensions and horizon height. Re-project it using the new two vanishing points for the turned box.



The upright moves left. The turned edges use the new pair of points.

Answer

The same box dimensions are kept and the near upright is shifted left. Both horizontal edge families turn and meet the new points at the original horizon height. The visible side widths change.

Reasoning

A physical turn changes both horizontal direction vectors. Each family reaches its own new point on the same eye-level line. The small placement shift makes the requested near edge move left.

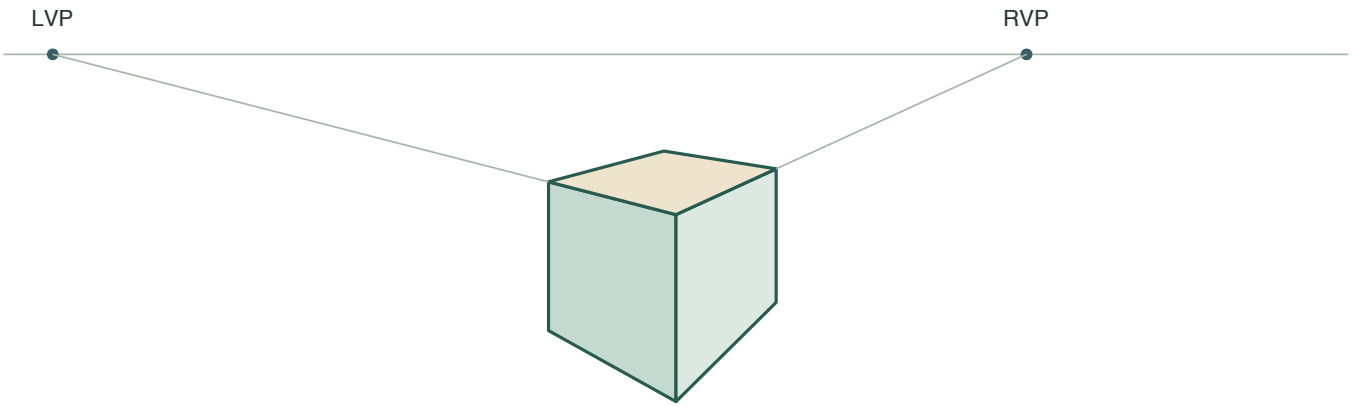
Check

Compare the new points with the first view. The horizon does not move up or down. Extend a pair of edges from each direction to its own new point and confirm the uprights stay vertical.

Box Drawing Exercises

Original prompt

Drill 3: Draw a box whose top face is visible because the viewer is above it, and project it correctly.



The visible top sits below the eye-level line.

Answer

A box whose top face is visible because the viewer is above it, with receding edges aiming at LVP and RVP and vertical edges parallel.

Reasoning

When the viewer is above the box, the top face is visible; the same projection rules apply, but the top face is drawn as the visible surface.

Check

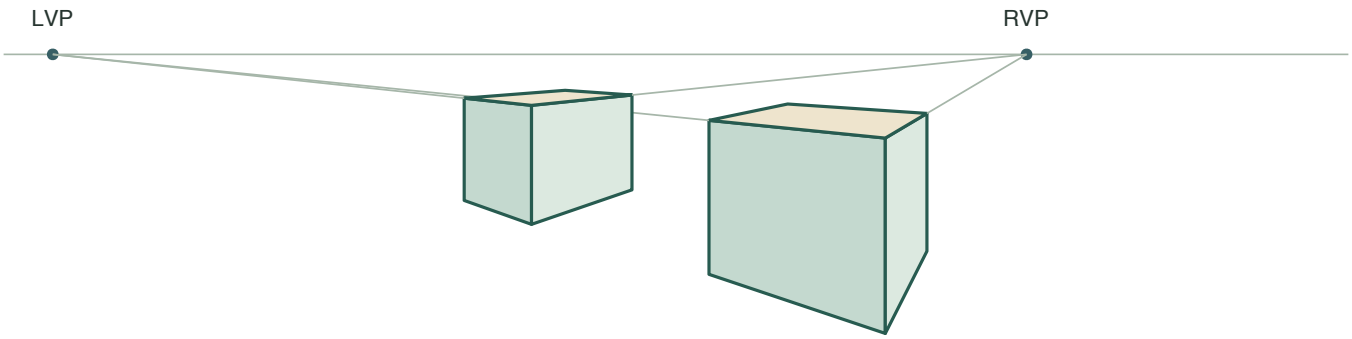
The top face reads as a surface, receding edges land on their vanishing points, and vertical edges stay parallel.

Box Drawing Exercises

Answer I Drill 4 of 4 I LETTER

Original prompt

Drill 4: Draw two boxes at different depths on the same horizon line and check that both converge correctly.



The smaller box is farther away. Both boxes use the same points.

Answer

Two boxes at different depths, each with receding edges aiming at the same LVP and RVP and vertical edges parallel.

Reasoning

Boxes at different depths share the same vanishing points but have different back-edge positions; each must be projected independently.

Check

Both boxes' receding edges land on the same LVP and RVP, and all vertical edges in both boxes are parallel.