Orthographic Drawing of Stairs

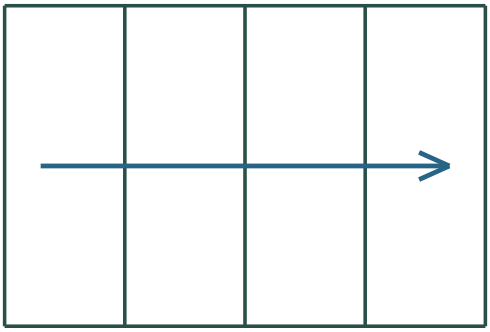
Reference I Worked example I LETTER

Original prompt

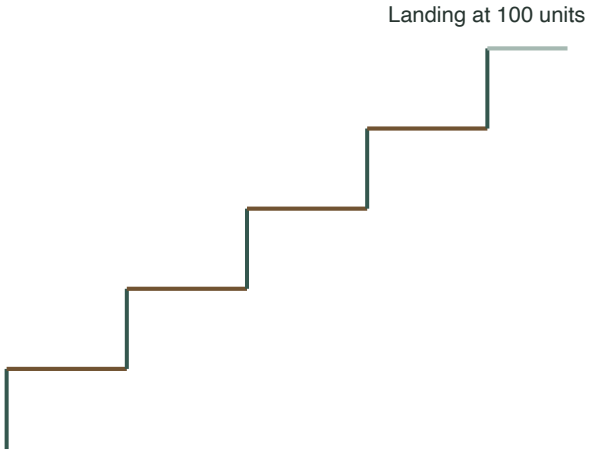
Draw a plan and elevation of a straight four-tread stair rising to a landing, then check the two views agree.

Given

Classroom model: four treads are each 80 units across and 30 along the run. Each rise is 20 units. Include the final rise to the landing.



Straight plan: 4 treads, each 80 × 30 units



4 tread surfaces · 5 rises of 20 units

Straight side elevation

Tread boundaries align in the plan and side elevation.

Answer

Plan: four 80-by-30 rectangles in a row with an arrow up the run. Elevation: four horizontal tread surfaces and five 20-unit risers, with the fifth reaching the landing. The total rise is 100 units.

Reasoning

The plan locates four equal tread footprints along the straight run. The side elevation shows those same four treads and the five rises to the landing, using this example's stated counting convention.

Check

Count four rectangles in plan and four tread surfaces in elevation. Count five risers, including the final landing rise, and verify that five 20-unit rises total 100 units.