Su-27 Orthographic Drawing: Plan and Side Outlines

Original worked example / unchanged complete key

Prompt: A student drafts a plan view with nose at station 0 and tail at station 20 grid squares. The wing root leading edge is at station 8 and trailing edge at station 14. The half-span is 6 squares. Draft the mirrored wing outline and state one check.

Answer: Plot the right half-wing from station 8 to 14 at the centerline, extend outward 6 squares, mirror the same stations to the left half, and label the wing root chord as 6 squares. Check symmetry by measuring 6 squares from the centerline on both sides at the wing tip station.

Reason: The plan view is symmetric, so the left half mirrors the right half. Labeling the root chord as the difference between trailing and leading stations (14 minus 8 equals 6) keeps the arithmetic checkable and consistent with the grid.

Check: Measure the distance from the centerline to each wing tip; both should equal 6 grid squares. Confirm the root chord label equals 14 minus 8.

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Plan-view drafting grid: 20 stations by 12 half-span squares

Actual source-bound component. Original question values and separate answer keys remain unchanged.



21 columns × 13 rows; 6 mm square cells; actual size at 100% printing.