Draw an Aircraft Planform: Wing Sweep, Fuselage Axis, and Tail Layout

Ordinary topic reference / separately checked pixels



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Original worked example / unchanged complete key

Prompt: On a grid, draw a fuselage centerline 12 squares long. Place the wing root at station 4 and the wing tip at station 7, with the tip 5 squares above the centerline. Draw a lateral reference at station 4 and measure the sweep angle to the leading edge. Then place the tail at station 10 with a half-span of 3 squares. Label the fuselage axis, sweep angle, tail span, and tail chord.

Answer: The lateral reference is horizontal at station 4. The leading edge rises 5 squares over a horizontal run of 3 squares (stations 4 to 7). The sweep angle is arctan(5/3) ≈ 59 degrees from the lateral reference. Tail span is 6 squares total (3 squares each side), and tail chord is the distance along the centerline from station 10 to the tail trailing edge, for example 2 squares. Labels state the reference and units.