Draw a Spooky House: Tilted Walls, Dark Windows, Bare Tree

Ordinary topic reference / separately checked pixels



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Original worked example / unchanged complete key

Prompt: Draw a spooky house on a 20 cm by 25 cm sheet. Use a baseline at 5 cm from the bottom, an x-height of 6 cm, a wall width of 12 cm, a wall tilt of 8 degrees to the right, two dark windows, and a bare tree with three fork levels beside the house.

Answer: Baseline at 5 cm; midline at 11 cm. Place wall bases at 4 cm and 16 cm on the baseline, so wall width is 16 - 4 = 12 cm horizontally. Both walls tilt 8 degrees to the right; wall height is measured vertically, so each wall rises 12 cm vertically (slanted length is about 12/cos 8 degrees, roughly 12.12 cm), and the wall tops are at 5 + 12 = 17 cm, level within 1 cm. Because both walls tilt the same way, the wall tops shift right together; mark the midpoint between the wall tops and place the roof peak above that midpoint, 3 cm higher at 20 cm, since the peak is half the x-height (6 / 2 = 3 cm) above the wall tops. Each height band is 12 / 3 = 4 cm; window height is 80% of one band, 0.8 x 4 = 3.2 cm, leaving 0.4 cm clearance above and 0.4 cm below inside the middle band. Two windows in the middle height band, each 3 cm wide with a 1.5 cm gap; total span is 3 + 1.5 + 3 = 7.5 cm, measured against the 12 cm wall width, so the two side margins total 12 - 7.5 = 4.5 cm and each margin is 2.25 cm, equal within 0.5 cm. Fill both windows dark. Bare tree trunk 8 cm tall beside the house; three fork levels with each child branch at least half its parent, and terminal branches are at least 1 cm long (one eighth of the trunk), which follows from three half-length fork levels but is checked explicitly.