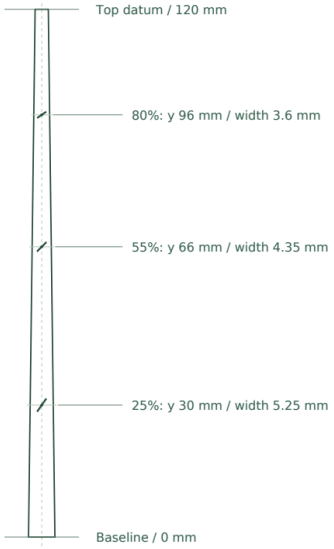
Draw a Plant Stem: Leaf-Node Joints and Taper Construction

Ordinary topic reference / separately checked pixels

Stem construction / all labelled mm dimensions print 1:1 / selected classroom study



Linear taper: width(y) = 6 + (3 - 6) x y / 120. The three selected node positions are not equal segments. Thin locating ticks are perpendicular; each dark final joint is shorter than the local width and separately angled. The 2 mm and 1 mm checks in the source are selected class criteria, not printing standards.

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Original worked example / unchanged complete key

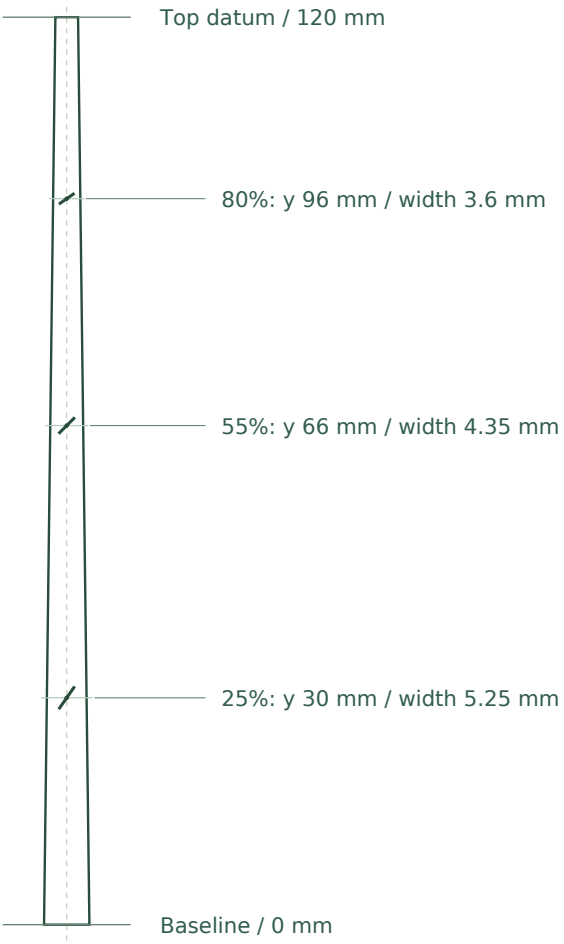
Prompt: Draw a stem study with axis length 120 mm, base width 6 mm, top width 3 mm, and nodes at 25, 55, and 80 percent. Calculate node positions and interpolated widths, then describe the drawing steps.

Answer: Node positions: 30 mm, 66 mm, and 96 mm from baseline. Interpolated widths: at 25 percent, 6 minus 0.25 times 3 equals 5.25 mm; at 55 percent, 6 minus 0.55 times 3 equals 4.35 mm; at 80 percent, 6 minus 0.80 times 3 equals 3.6 mm. Draw axis, mark baseline and midline, mark node positions, mark width points at each node, connect with smooth side lines, and add short upward joint lines at each node. Check that no joint line exceeds half the local width beyond the stem.

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Worked reference / reference

Stem construction / all labelled mm dimensions print 1:1 / selected classroom study



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