Drawing Symmetry Flowers: Axis Lines and Petal Mirroring

Ordinary topic reference / separately checked pixels



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Original worked example / unchanged complete key

Prompt: Draw an 8-petal symmetrical flower with a vertical axis. Use a center point, a tip distance of 4 cm, and petals spaced 45 degrees apart. Describe the steps and the final check.

Answer: Draw a light vertical axis and mark the center. Draw a horizontal guide. Measure angles clockwise from the top of the vertical axis. Draw the first petal on the right at 22.5 degrees with tip 4 cm from center. Its mirror partner is on the left at 360 − 22.5 = 337.5 degrees, same tip distance. Continue with the pair 67.5° with 360 − 67.5 = 292.5°. The remaining four petals are the same two pairs reflected below the horizontal guide: 112.5° with 360 − 112.5 = 247.5°, and 157.5° with 360 − 157.5 = 202.5°. This gives 8 petals in total. Check by folding along the vertical axis: each petal should align with its partner. Count 8 petals and confirm adjacent petals are about 45 degrees apart.