Draw a Claw in Perspective with Curved Taper

Ordinary topic reference / separately checked pixels



Draw a Claw in Perspective with Curved Taper

Original worked example / unchanged complete key

Prompt: Draw a claw with a base major axis of 6 cm, a minor-to-major ratio of 1:2, and a curved axis bending upward. Place cross-sections at major axes 4 cm, 2.5 cm, and 1 cm. Describe the construction and the final check.

Answer: Draw a horizontal major axis 6 cm long and an ellipse with minor axis 3 cm. Mark the base center and draw a curved axis bending upward to a tip. Place three cross-section centers along the axis at increasing cumulative distances with shrinking gaps, for example 2 cm, 3.5 cm, and 4.5 cm from the base center (gaps of 2 cm, 1.5 cm, and 1 cm). At each center draw an ellipse with the same 1:2 ratio and major axes 4 cm, 2.5 cm, and 1 cm. Connect the left edges and right edges with smooth curves meeting at the tip. Check that each center lies on the axis within 2 mm, that major axes decrease, and that the taper lines meet at one point. Label the ratio, spacing convention, and units.