Draw Seashells with Spiral and Rib Construction

Ordinary topic reference / separately checked pixels



Draw Seashells with Spiral and Rib Construction

Original worked example / unchanged complete key

Prompt: Draw a spiral shell with four coil loops and six radial ribs. Use a cone outline 12 cm long and 6 cm wide at the base. Choose a hypothetical rib spacing of 8 mm at the widest growth line, narrowing to 4 mm near the tip.

Answer: Cone outline drawn with axis. Four loops from base to tip, each touching the previous. Two growth lines marked: one at the widest part, one halfway to the tip. Six rib marks at 8 mm intervals on the wide line, projected to 4 mm intervals on the upper line. Ribs drawn as curved arcs connecting marks. Light shadow under rib crests and lower coil edge. Construction lines erased.

Reason: The cone outline controls the spiral taper. Growth lines provide reference for rib alignment. Narrowing intervals near the tip prevents crowding. Curved ribs follow the shell surface. Shadow adds depth without changing geometry.

Check: Measure rib intervals on both growth lines. On the wide line, six ribs give five intervals at 8 mm = 40 mm total, centered within the 6 cm (60 mm) base with 10 mm margins at each end. On the upper line, five intervals at 4 mm = 20 mm total. Count four loops and six ribs. Check that each rib meets a mark on both growth lines. Verify no coil loops cross.