Drawing Snake Scales on a Cylindrical Dowel: Curvature and Foreshortening

Original tasks 1, 2 / independent work

Task 1

A dowel measures 72 mm around. You choose 12 scales around and a scale height of 4 mm with one-third overlap. Calculate arc width per scale and visible row spacing. Describe the pattern at the front center and at the silhouette.

Task 2

A dowel has a circumference of 50 mm. You want scales about 5 mm wide at the front center. How many scales around should you choose, and what is the visible row spacing if scale height is 3 mm with one-third overlap?

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Original tasks 3, 4 / independent work

Task 3

You have drawn 6 rows with a visible row spacing of 3 mm. The dowel length you intend to cover is 20 mm. Does the pattern fit? Show the arithmetic and state one adjustment if needed.

Task 4

A drawing shows full-width scales right up to the silhouette line. Identify the problem and describe two changes that would improve the cylinder illusion.