Draw a Pile of Coins: Overlapping Ellipses and Edge Shading

Original tasks 1, 2 / independent work

Task 1

Two coins overlap. Coin 1 is behind, coin 2 is in front. Coin 1's top ellipse has width 60 mm and height 20 mm. Coin 2's top ellipse has the same dimensions and is shifted 15 mm right and 10 mm down. Describe which part of coin 1's outline is visible.

Task 2

A coin's side edge is visible along its lower curve. The coin diameter is 40 mm. Using the hypothetical band width of one-tenth of the diameter, state the band width and describe where it should be darkest.

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Original tasks 3, 4 / independent work

Task 3

You are drawing a pile of four coins in two layers: back layer coins A and B, front layer coins C and D. In what order should you draw the outlines, and why?

Task 4

A student shades the entire side edge of a coin evenly dark. The top face is also dark. Explain the problem and give one fix using the lesson convention.