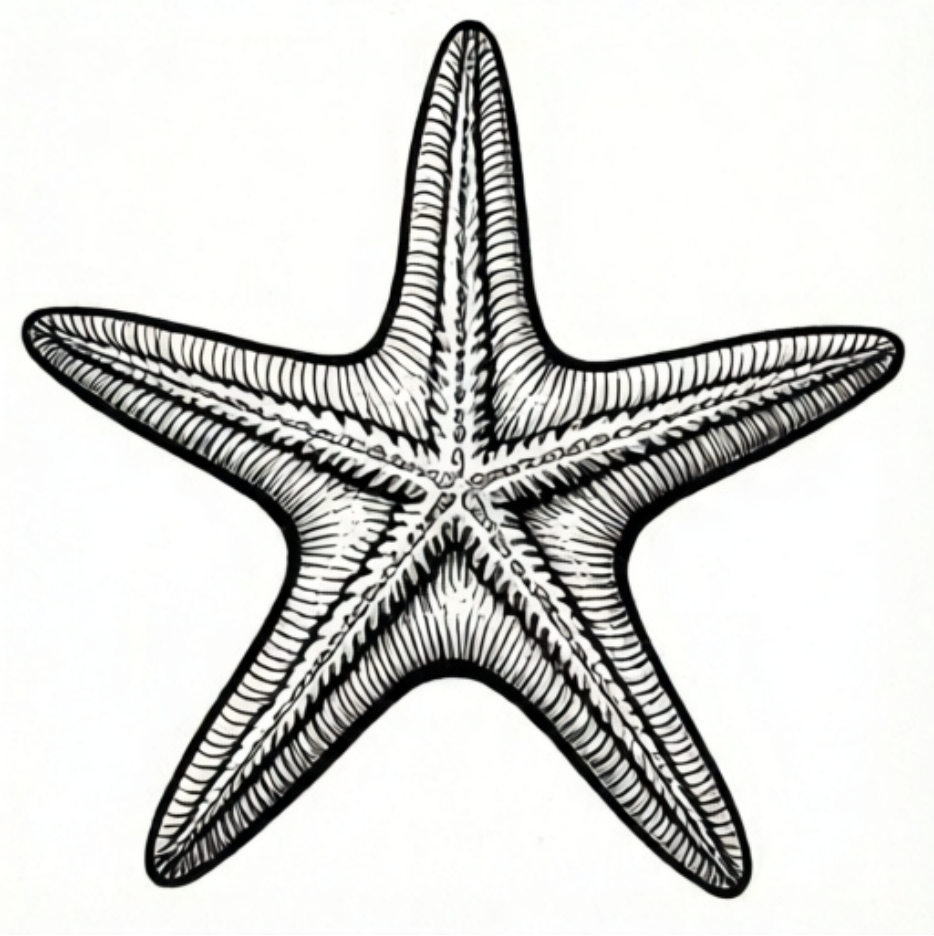
Starfish Symmetry Drawing: Radial Axis and Arm Completion

Topic reference / ordinary illustration



Ordinary topic reference. Hypothetical dimensions in the four tasks are supplied in their own text; this illustration is not their measured answer.

Starfish Symmetry Drawing: Radial Axis and Arm Completion

Worked example / complete source key

A student draws a starfish on a 20 cm by 20 cm page with center O at 10 cm from each edge. The reference arm is 6 cm long and 2 cm wide at its midpoint. The student marks rays at 72, 144, 216, and 288 degrees. What length and midpoint width should each of the other four arms have, and what total angle separates the first and last arm?

Answer: Each of the other four arms should be 6 cm long and 2 cm wide at its midpoint. The first and last arm are separated by 288 degrees, or equivalently 72 degrees in the other direction around the center.