Draw an All-Seeing Eye Emblem with Rayed Triangle

Original tasks 1, 2 / independent work

Task 1

Using triangle height 10 cm and base 12 cm, place the eye center one-third of the height below the top vertex. State the distance from the top vertex to the eye center.

Task 2

An eye has width 8 cm and height 4 cm. What is the maximum iris diameter that keeps the iris fully inside the lids if the iris is centered?

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Original tasks 3, 4 / independent work

Task 3

You want 10 rays placed symmetrically on an isosceles triangle: one ray start at the top vertex on the symmetry axis, then mirrored pairs of start points placed by reflection across the axis. If you place 4 mirrored pairs along the two equal sides, and each pair is at a perpendicular distance from the axis of 1 cm, 2 cm, 3 cm, and 4 cm respectively, how many ray starts are on the sides, and how many remain for the base?

Task 4

A drawing has left eye corner 2.5 cm from the axis and right eye corner 3.0 cm from the axis. Is the eye centered? If not, what adjustment makes it centered?