Two-Dimensional Cross-Sections and Rotations

Today's Standard

HSG.GMD.B4 - Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.

Cues	Notes
What is a cross-section?	A cross-section is the shape you get when you cut through a three-dimensional object.
How are 3D objects generated by rotations?	Rotating a two-dimensional shape around an axis creates a three-dimensional object.
Examples of real-world applications	Applications include medical imaging, engineering designs, and architecture.
Common misconceptions	Misconceptions include thinking cross-sections always resemble the original shape and that rotations create larger 2D shapes.
Prerequisite knowledge	Students should understand basic geometric shapes and properties.

Summary

Understanding cross-sections and rotations of shapes helps in fields like engineering and medical imaging. Common misconceptions include misunderstandings about the shapes of cross-sections and the results of rotations.