Objective: In this lesson, you will identify the shapes of two-dimensional cross sections of three-dimensional objects and identify three-dimensional objects generated by rotations of two-dimensional objects.

A plane cuts through a three-dimensional chalice to form a cross section.

Cross Sections

Cross sections are objects formed when ________________________________
Example

The pyramid in the diagram is cut by a plane as shown. What is the shape of the cross section?

Example

In this diagram, a triangular prism is cut by a plane as shown. What is the shape of the cross section?
Rotating Two-Dimensional Objects

When the rectangle is rotated about the given axis, it forms a cylindrical shell.

Example
A right triangle is rotated about an axis that passes through its height as shown. Which type of object will be formed by its rotation?