

# Volumes on a Base Model

## Purpose

Students visualize and, hence, better understand the “Volumes on a Base” or “Volumes with Known Cross Sections” topic by working in pairs creating a 3-D model and then analyzing other pairs’ models.

## Project Specifications

- **Graph the base bounded by the functions** (you chose when you signed up) on graph paper and **glue it** on some hard surface (cardboard, etc.)
- **Use the assigned cross section** or something even more creative.
- **Check** if your cross sections are supposed to be **perpendicular to x- or y- axis**.
- **Cut out and glue** cross sections onto the base. You can just stock paper or be more creative.
- **Write out the question** the model represents so that students can calculate its volume.
- Create detailed answer key to the problem so that students can check their work.

## Due Date and Time Requirement:

Due on Friday, March 18, 2015. Time commitment should be **1-3 hours between 2 students**.

## Deliverables

1. Problem clearly written so that students can solve it.
2. Model meeting above specifications so that students can use it to solve the problem.
3. Answer key for students to check their work.

## Grading

Grade will be based on quality and completion of the project based on the above detailed specifications. No late work will be accepted except for special circumstances previously explained in person or via email.

If you did not have a chance to sign up, create a model that is creative and interesting based on ideas from the web, etc.