Exploration
STUDENT
worksheet   Just Dunk It!

Name _____

Date _____

Overview

In this Exploration you will calculate the volume of three shapes using the displacement method.

Questions

1. Define volume.

2. When you enter the same radius and height values for triangular and square shapes, how do their volumes compare?

3. When you enter the same radius and height values for all shapes, how do the different number of sides affect volume?

How to Use This Exploration

1. Read the Introduction and click the Continue button.

2. Complete the Data Chart below by following these steps:

    •   Note that the radius (r) is a measurement from the center of a polygon to one of its vertices.

    •   Select a shape and then enter values for radius and height within the range given.

    •   Press the Play button to watch as the shape is submerged, demonstrating the displacement method.

    •   Calculate the volume and enter all data into the Data Chart.

    •   Continue with different shape, radius, and height combinations.

Data

	Triangular Shape	Square Shape	Pentagonal Shape
Measurements	radius (cm):	radius (cm):	radius (cm):
	height (cm):	height (cm):	height (cm):
Calculated Volume (cm³)			
Measurements	radius (cm):	radius (cm):	radius (cm):
	height (cm):	height (cm):	height (cm):
Calculated Volume (cm³)			
Measurements	radius (cm):	radius (cm):	radius (cm):
	height (cm):	height (cm):	height (cm):
Calculated Volume (cm³)			