Volume Calculations for 3D Shapes

Today's Standard

HSG.GMD.A3 - Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.*

Cues	Notes
Volume formulas	Volume formulas are used to calculate the space inside 3D shapes.
Cylinder	Cylinder: $V = \pi r^2 h$
Pyramid	Pyramid: $V = (1/3)Bh$
Cone	Cone: $V = (1/3)\pi r^2 h$
Sphere	Sphere: $V = (4/3)\pi r^3$
Common misconceptions	Students may confuse formulas or units.
Unit consistency	Consistent units are crucial for accurate calculations.

Summary

Understanding and applying volume formulas for cylinders, pyramids, cones, and spheres is essential. Common misconceptions include confusing formulas and misapplying units.