

# Polytope

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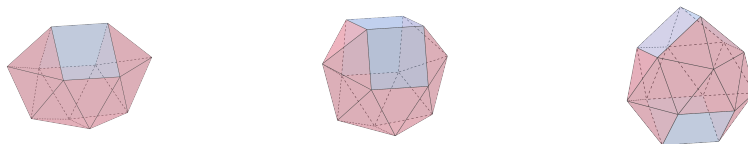
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## 1 Introduction

Welcome to the Polytope Discord! Here we discuss Polytopes, which is a general term that encompasses polygons (2D), polyhedra (3D), polychora (4D), and so on for any dimension.

## 2 Uniform polytopes

Intuitively, a polytope is *uniform* when all of its facets are regular and all of its vertices “look the same.” To see what we mean, let’s look at a few examples.



(a) Sphenomegacorona    (b) Hebesphenomegacorona    (c) Disphenocingulum

Figure 1: The three Johnson solids whose dihedral angles and volumes have neither been calculated nor are easily calculated from other simpler polyhedra.