ENTRY POLYHEDRA

[ENTRY POLYHEDRA] Authors: Oliver Knill: December 2000 Source: Translated into this format from data given in http://netlib.bell-labs.com/netlib

tetrahedron

The [tetrahedron] is a polyhedron with 4 vertices and 4 faces. The dual polyhedron is called tetrahedron.

cube

The [cube] is a polyhedron with 8 vertices and 6 faces. The dual polyhedron is called octahedron.

hexahedron

The [hexahedron] is a polyhedron with 8 vertices and 6 faces. The dual polyhedron is called octahedron.

octahedron

The [octahedron] is a polyhedron with 6 vertices and 8 faces. The dual polyhedron is called cube.

dodecahedron

The [dodecahedron] is a polyhedron with 20 vertices and 12 faces. The dual polyhedron is called icosahedron.

icosahedron

The [icosahedron] is a polyhedron with 12 vertices and 20 faces. The dual polyhedron is called dodecahedron.

small stellated dodecahedron

The [small stellated dodecahedron] is a polyhedron with 12 vertices and 12 faces. The dual polyhedron is called great dodecahedron.

great dodecahedron

The [great dodecahedron] is a polyhedron with 12 vertices and 12 faces. The dual polyhedron is called small stellated dodecahedron.

great stellated dodecahedron

The [great stellated dodecahedron] is a polyhedron with 20 vertices and 12 faces. The dual polyhedron is called great icosahedron.

great icosahedron

The [great icosahedron] is a polyhedron with 12 vertices and 20 faces. The dual polyhedron is called great stellated dodecahedron.

truncated tetrahedron

The [truncated tetrahedron] is a polyhedron with 12 vertices and 8 faces. The dual polyhedron is called triakis tetrahedron.

cuboctahedron

The [cuboctahedron] is a polyhedron with 12 vertices and 14 faces. The dual polyhedron is called rhombic dodecahedron.

truncated cube

The [truncated cube] is a polyhedron with 24 vertices and 14 faces. The dual polyhedron is called triakis octahedron.

truncated octahedron

The [truncated octahedron] is a polyhedron with 24 vertices and 14 faces. The dual polyhedron is called tetrakis hexahedron.

rhombicuboctahedron

The [rhombicuboctahedron] is a polyhedron with 24 vertices and 26 faces. The dual polyhedron is called trapezoidal icositetrahedron.

great rhombicuboctahedron

The [great rhombicuboctahedron] is a polyhedron with 48 vertices and 26 faces. The dual polyhedron is called hexakis octahedron.

snub cube

The [snub cube] is a polyhedron with 24 vertices and 38 faces. The dual polyhedron is called pentagonal icositetrahedron.

icosidodecahedron

The [icosidodecahedron] is a polyhedron with 30 vertices and 32 faces. The dual polyhedron is called rhombic triacontahedron.

truncated dodecahedron

The [truncated dodecahedron] is a polyhedron with 60 vertices and 42 faces. The dual polyhedron is called triakis icosahedron.

truncated icosahedron

The [truncated icosahedron] is a polyhedron with 60 vertices and 32 faces. The dual polyhedron is called pentakis dodecahedron.

rhombicosidodecahedron

The [rhombicosidodecahedron] is a polyhedron with 60 vertices and 62 faces. The dual polyhedron is called trapezoidal hexecontahedron.

great rhombicosidodecahedron

The [great rhombicosidodecahedron] is a polyhedron with 120 vertices and 62 faces. The dual polyhedron is called hexakis icosahedron.

snub dodecahedron

The [snub dodecahedron] is a polyhedron with 60 vertices and 92 faces. The dual polyhedron is called pentagonal hexacontahedron.

triangular prism

The [triangular prism] is a polyhedron with 6 vertices and 5 faces.

pentagonal prism

The [pentagonal prism] is a polyhedron with 10 vertices and 7 faces.

hexagonal prism

The [hexagonal prism] is a polyhedron with 12 vertices and 8 faces.

octagonal prism

The [octagonal prism] is a polyhedron with 16 vertices and 10 faces.

decagonal prism

The [decagonal prism] is a polyhedron with 20 vertices and 12 faces.

square antiprism

The [square antiprism] is a polyhedron with 8 vertices and 10 faces.

pentagonal antiprism

The [pentagonal antiprism] is a polyhedron with 10 vertices and 12 faces.

hexagonal antiprism

The [hexagonal antiprism] is a polyhedron with 12 vertices and 13 faces.

octagonal antiprism

The [octagonal antiprism] is a polyhedron with 16 vertices and 18 faces.

decagonal antiprism

The [decagonal antiprism] is a polyhedron with 20 vertices and 22 faces.

triakis tetrahedron

The [triakis tetrahedron] is a polyhedron with 8 vertices and 12 faces. The dual polyhedron is called truncated tetrahedron.

rhombic dodecahedron

The [rhombic dodecahedron] is a polyhedron with 14 vertices and 12 faces. The dual polyhedron is called cuboctahedron.

triakis octahedron

The [triakis octahedron] is a polyhedron with 14 vertices and 24 faces. The dual polyhedron is called truncated cube.

tetrakis hexahedron

The [tetrakis hexahedron] is a polyhedron with 14 vertices and 24 faces. The dual polyhedron is called truncated octahedron.

trapezoidal icositetrahedron

The [trapezoidal icositetrahedron] is a polyhedron with 26 vertices and 24 faces. The dual polyhedron is called rhombicuboctahedron.

hexakis octahedron

The [hexakis octahedron] is a polyhedron with 26 vertices and 48 faces. The dual polyhedron is called great rhombicuboctahedron.

pentagonal icositetrahedron

The [pentagonal icositetrahedron] is a polyhedron with 38 vertices and 24 faces. The dual polyhedron is called snub cube.

rhombic triacontahedron

The [rhombic triacontahedron] is a polyhedron with 32 vertices and 30 faces. The dual polyhedron is called icosidodecahedron.

triakis icosahedron

The [triakis icosahedron] is a polyhedron with 32 vertices and 60 faces. The dual polyhedron is called truncated dodecahedron.

pentakis dodecahedron

The [pentakis dodecahedron] is a polyhedron with 32 vertices and 60 faces. The dual polyhedron is called truncated icosahedron.

trapezoidal hexecontahedron

The [trapezoidal hexecontahedron] is a polyhedron with 62 vertices and 60 faces. The dual polyhedron is called rhombicosidodecahedron.

hexakis icosahedron

The [hexakis icosahedron] is a polyhedron with 62 vertices and 120 faces. The dual polyhedron is called great rhombicosidodecahedron.

pentagonal hexecontahedron

The [pentagonal hexecontahedron] is a polyhedron with 92 vertices and 60 faces. The dual polyhedron is called snub dodecahedron.

square pyramid

The [square pyramid] is a polyhedron with 5 vertices and 5 faces.

pentagonal pyramid

The [pentagonal pyramid] is a polyhedron with 6 vertices and 6 faces.

triangular cupola

The [triangular cupola] is a polyhedron with 9 vertices and 8 faces.

square cupola

The [square cupola] is a polyhedron with 12 vertices and 10 faces.

pentagonal cupola

The [pentagonal cupola] is a polyhedron with 15 vertices and 12 faces.

pentagonal rotunda

The [pentagonal rotunda] is a polyhedron with 20 vertices and 17 faces.

elongated triangular pyramid

The [elongated triangular pyramid] is a polyhedron with 7 vertices and 7 faces.

elongated square pyramid

The [elongated square pyramid] is a polyhedron with 9 vertices and 9 faces.

elongated pentagonal pyramid

The [elongated pentagonal pyramid] is a polyhedron with 11 vertices and 11 faces.

gyroelongated square pyramid

The [gyroelongated square pyramid] is a polyhedron with 9 vertices and 13 faces.

gyroelongated pentagonal pyramid

The [gyroelongated pentagonal pyramid] is a polyhedron with 11 vertices and 16 faces.

triangular dipyramid

The [triangular dipyramid] is a polyhedron with 5 vertices and 6 faces.

pentagonal dipyramid

The [pentagonal dipyramid] is a polyhedron with 7 vertices and 10 faces.

elongated triangular dipyramid

The [elongated triangular dipyramid] is a polyhedron with 8 vertices and 9 faces.

elongated square dipyramid

The [elongated square dipyramid] is a polyhedron with 10 vertices and 12 faces.

elongated pentagonal dipyramid

The [elongated pentagonal dipyramid] is a polyhedron with 12 vertices and 15 faces.

gyroelongated square dipyramid

The [gyroelongated square dipyramid] is a polyhedron with 10 vertices and 16 faces.

elongated triangular cupola

The [elongated triangular cupola] is a polyhedron with 15 vertices and 14 faces.

elongated square cupola

The [elongated square cupola] is a polyhedron with 20 vertices and 18 faces.

elongated pentagonal cupola

The [elongated pentagonal cupola] is a polyhedron with 25 vertices and 22 faces.

elongated pentagonal rotunds

The [elongated pentagonal rotunds] is a polyhedron with 30 vertices and 27 faces.

gyroelongated triangular cupola

The [gyroelongated triangular cupola] is a polyhedron with 15 vertices and 20 faces.

gyroelongated square cupola

The [gyroelongated square cupola] is a polyhedron with 20 vertices and 26 faces.

gyroelongated pentagonal cupola

The [gyroelongated pentagonal cupola] is a polyhedron with 25 vertices and 32 faces.

gyroelongated pentagonal rotunda

The [gyroelongated pentagonal rotunda] is a polyhedron with 30 vertices and 37 faces.

gyrobifastigium

The [gyrobifastigium] is a polyhedron with 8 vertices and 8 faces.

triangular orthobicupola

The [triangular orthobicupola] is a polyhedron with 12 vertices and 14 faces.

square orthobicupola

The [square orthobicupola] is a polyhedron with 16 vertices and 18 faces.

square gyrobicupola

The [square gyrobicupola] is a polyhedron with 16 vertices and 18 faces.

pentagonal orthobicupola

The [pentagonal orthobicupola] is a polyhedron with 20 vertices and 22 faces.

pentagonal gyrobicupola

The [pentagonal gyrobicupola] is a polyhedron with 20 vertices and 22 faces.

pentagonal orthocupolarontunda

The [pentagonal orthocupolarontunda] is a polyhedron with 25 vertices and 27 faces.

pentagonal gyrocupolarotunda

The [pentagonal gyrocupolarotunda] is a polyhedron with 25 vertices and 27 faces.

pentagonal orthobirotunda

The [pentagonal orthobirotunda] is a polyhedron with 30 vertices and 32 faces.

elongated triangular orthobicupola

The [elongated triangular orthobicupola] is a polyhedron with 18 vertices and 20 faces.

elongated triangular gyrobicupola

The [elongated triangular gyrobicupola] is a polyhedron with 18 vertices and 20 faces.

elongated square gyrobicupola

The [elongated square gyrobicupola] is a polyhedron with 24 vertices and 26 faces.

elongated pentagonal orthobicupola

The [elongated pentagonal orthobicupola] is a polyhedron with 30 vertices and 32 faces.

elongated pentagonal gyrobicupola

The [elongated pentagonal gyrobicupola] is a polyhedron with 30 vertices and 32 faces.

elongated pentagonal orthocupolarotunda

The [elongated pentagonal orthocupolarotunda] is a polyhedron with 35 vertices and 37 faces.

elongated pentagonal gyrocupolarotunda

The [elongated pentagonal gyrocupolarotunda] is a polyhedron with 35 vertices and 37 faces.

elongated pentagonal orthobirotunda

The [elongated pentagonal orthobirotunda] is a polyhedron with 40 vertices and 32 faces.

elongated pentagonal gyrobirotunda

The [elongated pentagonal gyrobirotunda] is a polyhedron with 40 vertices and 42 faces.

gyroelongated triangular bicupola

The [gyroelongated triangular bicupola] is a polyhedron with 18 vertices and 26 faces.

gyroelongated square bicupola

The [gyroelongated square bicupola] is a polyhedron with 24 vertices and 34 faces.

gyroelongated pentagonal bicupola

The [gyroelongated pentagonal bicupola] is a polyhedron with 30 vertices and 42 faces.

gyroelongated pentagonal cupolarotunda

The [gyroelongated pentagonal cupolarotunda] is a polyhedron with 35 vertices and 47 faces.

gyroelongated pentagonal birotunda

The [gyroelongated pentagonal birotunda] is a polyhedron with 40 vertices and 52 faces.

augmented triangular prism

The [augmented triangular prism] is a polyhedron with 7 vertices and 8 faces.

biaugmented triangular prism

The [biaugmented triangular prism] is a polyhedron with 8 vertices and 11 faces.

triaugmented triangular prism

The [triaugmented triangular prism] is a polyhedron with 9 vertices and 14 faces.

augmented pentagonal prism

The [augmented pentagonal prism] is a polyhedron with 11 vertices and 10 faces.

biaugmented pentagonal prism

The [biaugmented pentagonal prism] is a polyhedron with 12 vertices and 13 faces.

augmented hexagonal prism

The [augmented hexagonal prism] is a polyhedron with 13 vertices and 11 faces.

parabiaugmented hexagonal prism

The [parabiaugmented hexagonal prism] is a polyhedron with 14 vertices and 14 faces.

metabiaugmented hexagonal prism

The [metabiaugmented hexagonal prism] is a polyhedron with 14 vertices and 14 faces.

triaugmented hexagonal prism

The [triaugmented hexagonal prism] is a polyhedron with 15 vertices and 17 faces.

augmented dodecahedron

The [augmented dodecahedron] is a polyhedron with 21 vertices and 16 faces.

parabiaugmented dodecahedron

The [parabiaugmented dodecahedron] is a polyhedron with 22 vertices and 20 faces.

metabiaugmented dodecahedron

The [metabiaugmented dodecahedron] is a polyhedron with 22 vertices and 20 faces.

triaugmented dodecahedron

The [triaugmented dodecahedron] is a polyhedron with 23 vertices and 24 faces.

metabidiminished icosahedron

The [metabidiminished icosahedron] is a polyhedron with 10 vertices and 12 faces.

tridiminished icosahedron

The [tridiminished icosahedron] is a polyhedron with 9 vertices and 8 faces.

augmented tridiminished icosahedron

The [augmented tridiminished icosahedron] is a polyhedron with 10 vertices and 10 faces.

augmented truncated tetrahedron

The [augmented truncated tetrahedron] is a polyhedron with 15 vertices and 14 faces.

augmented truncated cube

The [augmented truncated cube] is a polyhedron with 28 vertices and 22 faces.

biaugmented truncated cube

The [biaugmented truncated cube] is a polyhedron with 32 vertices and 30 faces.

augmented truncated dodecahedron

The [augmented truncated dodecahedron] is a polyhedron with 65 vertices and 42 faces.

parabiaugmented truncated dodecahedron

The [parabiaugmented truncated dodecahedron] is a polyhedron with 70 vertices and 52 faces.

metabiaugmented truncated dodecahedron

The [metabiaugmented truncated dodecahedron] is a polyhedron with 70 vertices and 52 faces.

triaugmented truncated dodecahedron

The [triaugmented truncated dodecahedron] is a polyhedron with 75 vertices and 62 faces.

gyrate rhombicosidodecahedron

The [gyrate rhombicosidodecahedron] is a polyhedron with 60 vertices and 62 faces.

parabigyrate rhombicosidodecahedron

The [parabigyrate rhombicosidodecahedron] is a polyhedron with 60 vertices and 62 faces.

metabigyrate rhombicosidodecahedron

The [metabigyrate rhombicosidodecahedron] is a polyhedron with 60 vertices and 62 faces.

trigyrate rhombicosidodecahedron

The [trigyrate rhombicosidodecahedron] is a polyhedron with 60 vertices and 62 faces.

diminished rhombicosidodecahedron

The [diminished rhombicosidodecahedron] is a polyhedron with 55 vertices and 52 faces.

paragyrate diminished rhombicosidodecahedron

The [paragyrate diminished rhombicosidodecahedron] is a polyhedron with 55 vertices and 52 faces.

metagyrate diminished rhombicosidodecahedron

The [metagyrate diminished rhombicosidodecahedron] is a polyhedron with 55 vertices and 52 faces.

bigyrate diminished rhombicosidodecahedron

The [bigyrate diminished rhombicosidodecahedron] is a polyhedron with 55 vertices and 52 faces.

parabidiminished rhombicosidodecahedron

The [parabidiminished rhombicosidodecahedron] is a polyhedron with 50 vertices and 42 faces.

metabidiminished rhombicosidodecahedron

The [metabidiminished rhombicosidodecahedron] is a polyhedron with 50 vertices and 42 faces.

gyrate bidiminished rhombicosidodecahedron

The [gyrate bidiminished rhombicosidodecahedron] is a polyhedron with 50 vertices and 42 faces.

tridiminished rhombicosidodecahedron

The [tridiminished rhombicosidodecahedron] is a polyhedron with 45 vertices and 32 faces.

snub disphenoid

The [snub disphenoid] is a polyhedron with 8 vertices and 12 faces.

snub square antiprism

The [snub square antiprism] is a polyhedron with 16 vertices and 26 faces.

sphenocorona

The [sphenocorona] is a polyhedron with 10 vertices and 14 faces.

augmented sphenocorona

The [augmented sphenocorona] is a polyhedron with 11 vertices and 17 faces.

sphenomegacorona

The [sphenomegacorona] is a polyhedron with 12 vertices and 18 faces.

hebesphenomegacorona

The [hebesphenomegacorona] is a polyhedron with 14 vertices and 21 faces.

disphenocingulum

The [disphenocingulum] is a polyhedron with 16 vertices and 24 faces.

bilunabirotunda

The [bilunabirotunda] is a polyhedron with 14 vertices and 14 faces.

triangular hebesphenorotunda

The [triangular hebesphenorotunda] is a polyhedron with 18 vertices and 20 faces.

tetrahemihexahedron

The [tetrahemihexahedron] is a polyhedron with 7 vertices and 16 faces.

octahemioctahedron

The [octahemioctahedron] is a polyhedron with 13 vertices and 32 faces.

small ditrigonal icosidodecahedron

The [small ditrigonal icosidodecahedron] is a polyhedron with 80 vertices and 72 faces.

dodecadodecahedron

The [dodecadodecahedron] is a polyhedron with 110 vertices and 72 faces.

echidnahedron

The [echidnahedron] is a polyhedron with 92 vertices and 180 faces.

This file is part of the Sofia project sponsored by the Provost's fund for teaching and learning at Harvard university. There are 143 entries in this file.

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