In[2]:= >> Catalan Dual of {7,3}5: Great RhombicosidodecahedronDual (Disdyakis Triacontahedron) <<

Set up quaternion H3 Coxeter Dynkin Wythoff Orbits 8DH3 Wikipedia

Polyhedron quaternion coordinate scales (See section 4.4 of https://arxiv.org/abs/1908.3273)

$$\text{In}[2]:=\ \text{c1}=\frac{1+\sqrt{5}}{2};\ \text{c2}=\frac{3+\sqrt{5}}{2};\ \text{c3}=\frac{2+\sqrt{5}}{2};\ \text{c4}=\frac{5+\sqrt{5}}{2};\ \text{c5}=\frac{3+\sqrt{5}}{4};\ \text{c6}=\frac{5+\sqrt{5}}{4};\ \text{c7}=\frac{7+\sqrt{5}}{4};\ \text{c8}=\frac{9+\sqrt{5}}{4};\ \text{c9}=\frac{1+\sqrt{5}}{4};\ \text{c10}=\frac{3+\sqrt{5}}{4};\ \text{c11}=\frac{5+\sqrt{5}}{4};\ \text{c12}=\frac{7+\sqrt{5}}{4};\ \text{c13}=\frac{1+\sqrt{5}}{2};\ \text{c14}=\frac{3+\sqrt{5}}{2};\ \text{c15}=\frac{2+\sqrt{5}}{2};\ \text{c16}=\frac{5+\sqrt{5}}{2};\ \text{c17}=\frac{3+\sqrt{5}}{4};\ \text{c18}=\frac{5+\sqrt{5}}{4};\ \text{c19}=\frac{7+\sqrt{5}}{4};\ \text{c20}=\frac{9+\sqrt{5}}{4};\ \text{c21}=\frac{1+\sqrt{5}}{4};\ \text{c22}=\frac{3+\sqrt{5}}{4};\ \text{c23}=\frac{5+\sqrt{5}}{4};\ \text{c24}=\frac{7+\sqrt{5}}{4};\ \text{c25}=\frac{1+\sqrt{5}}{2};\ \text{c26}=\frac{3+\sqrt{5}}{2};\ \text{c27}=\frac{2+\sqrt{5}}{2};\ \text{c28}=\frac{5+\sqrt{5}}{2};\ \text{c29}=\frac{3+\sqrt{5}}{4};\ 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\text{c424}=\frac{5+\sqrt{5}}{2};\ \text{c425}=\frac{3+\sqrt{5}}{4};\ \text{c426}=\frac{5+\sqrt{5}}{4};\ \text{c427}=\frac{7+\sqrt{5}}{4};\ \text{c428}=\frac{9+\sqrt{5}}{4};\ \text{c429}=\frac{1+\sqrt{5}}{4};\ \text{c430}=\frac{3+\sqrt{5}}{4};\ \text{c431}=\frac{5+\sqrt{5}}{4};\ \text{c432}=\frac{7+\sqrt{5}}{4};\ \text{c433}=\frac{1+\sqrt{5}}{2};\ \text{c434}=\frac{3+\sqrt{5}}{2};\ \text{c435}=\frac{2+\sqrt{5}}{2};\ \text{c436}=\frac{5+\sqrt{5}}{2};\ \text{c437}=\frac{3+\sqrt{5}}{4};\ \text{c438}=\frac{5+\sqrt{5}}{4};\ \text{c439}=\frac{7+\sqrt{5}}{4};\ \text{c440}=\frac{9+\sqrt{5}}{4};\ \text{c441}=\frac{1+\sqrt{5}}{4};\ \text{c442}=\frac{3+\sqrt{5}}{4};\ \text{c443}=\frac{5+\sqrt{5}}{4};\ \text{c444}=\frac{7+\sqrt{5}}{4};\ \text{c445}=\frac{1+\sqrt{5}}{2};\ \text{c446}=\frac{3+\sqrt{5}}{2};\ \text{c447}=\frac{2+\sqrt{5}}{2};\ \text{c448}=\frac{5+\sqrt{5}}{2};\ \text{c449}=\frac{3+\sqrt{5}}{4};\ \text{c450}=\frac{5+\sqrt{5}}{4};\ \text{c451}=\frac{7+\sqrt{5}}{4};\ \text{c452}=\frac{9+\sqrt{5}}{4};\ \text{c453}=\frac{1+\sqrt{5}}{4};\ \text{c454}=\frac{3+\sqrt{5}}{4};\ \text{c455}=\frac{5+\sqrt{5}}{4};\ \text{c456}=\frac{7+\sqrt{5}}{4};\ \text{c457}=\frac{1+\sqrt{5}}{2};\ \text{c458}=\frac{3+\sqrt{5}}{2};\ \text{c459}=\frac{2+\sqrt{5}}{2};\ \text{c460}=\frac{5+\sqrt{5}}{2};\ \text{c461}=\frac{3+\sqrt{5}}{4};\ \text{c462}=\frac{5+\sqrt{5}}{4};\ \text{c463}=\frac{7+\sqrt{5}}{4};\ \text{c464}=\frac{9+\sqrt{5}}{4};\ \text{c465}=\frac{1+\sqrt{5}}{4};\ \text{c466}=\frac{3+\sqrt{5}}{4};\ \text{c467}=\frac{5+\sqrt{5}}{4};\ \text{c468}=\frac{7+\sqrt{5}}{4};\ \text{c469}=\frac{1+\sqrt{5}}{2};\ \text{c470}=\frac{3+\sqrt{5}}{2};\ \text{c471}=\frac{2+\sqrt{5}}{2};\ \text{c472}=\frac{5+\sqrt{5}}{2};\ \text{c473}=\frac{3+\sqrt{5}}{4};\ \text{c474}=\frac{5+\sqrt{5}}{4};\ \text{c475}=\frac{7+\sqrt{5}}{4};\ \text{c476}=\frac{9+\sqrt{5}}{4};\ \text{c477}=\frac{1+\sqrt{5}}{4};\ \text{c478}=\frac{3+\sqrt{5}}{4};\ \text{c479}=\frac{5+\sqrt{5}}{4};\ \text{c480}=\frac{7+\sqrt{5}}{4};\ \text{c481}=\frac{1+\sqrt{5}}{2};\ \text{c482}=\frac{3+\sqrt{5}}{2};\ \text{c483}=\frac{2+\sqrt{5}}{2};\ \text{c484}=\frac{5+\sqrt{5}}{2};\ \text{c485}=\frac{3+\sqrt{5}}{4};\ \text{c486}=\frac{5+\sqrt{5}}{4};\ \text{c487}=\frac{7+\sqrt{5}}{4};\ \text{c488}=\frac{9+\sqrt{5}}{4};\ \text{c489}=\frac{1+\sqrt{5}}{4};\ \text{c490}=\frac{3+\sqrt{5}}{4};\ \text{c491}=\frac{5+\sqrt{5}}{4};\ \text{c492}=\frac{7+\sqrt{5}}{4};\ \text{c493}=\frac{1+\sqrt{5}}{2};\ \text{c494}=\frac{3+\sqrt{5}}{2};\ \text{c495}=\frac{2+\sqrt{5}}{2};\ \text{c496}=\frac{5+\sqrt{5}}{2};\ \text{c497}=\frac{3+\sqrt{5}}{4};\ \text{c498}=\frac{5+\sqrt{5}}{4};\ \text{c499}=\frac{7+\sqrt{5}}{4};\ \text{c500}=\frac{9+\sqrt{5}}{4};\ \text{c501}=\frac{1+\sqrt{5}}{4};\ \text{c502}=\frac{3+\sqrt{5}}{4};\ \text{c503}=\frac{5+\sqrt{5}}{4};\ \text{c504}=\frac{7+\sqrt{5}}{4};\ \text{c505}=\frac{1+\sqrt{5}}{2};\ \text{c506}=\frac{3+\sqrt{5}}{2};\ \text{c507}=\frac{2+\sqrt{5}}{2};\ \text{c508}=\frac{5+\sqrt{5}}{2};\ \text{c509}=\frac{3+\sqrt{5}}{4};\ \text{c510}=\frac{5+\sqrt{5}}{4};\ \text{c511}=\frac{7+\sqrt{5}}{4};\ \text{c512}=\frac{9+\sqrt{5}}{4}$$

In[2]:= >> Catalan Dual of {7,3}5: Great RhombicosidodecahedronDual (Disdyakis Triacontahedron) <<

Set up quaternion H3 Coxeter Dynkin Wythoff Orbits 8DH3 Wikipedia

Polyhedron quaternion coordinate scales (See section 4.4 of https://arxiv.org/abs/1908.3273)

In[2]:= c1 = (1 + Sqrt[5])/2; c2 = (3 + Sqrt[5])/2; c3 = (2 + Sqrt[5])/2; c4 = (5 + Sqrt[5])/2; c5 = (3 + Sqrt[5])/4; c6 = (5 + Sqrt[5])/4; c7 = (7 + Sqrt[5])/4; c8 = (9 + Sqrt[5])/4; c9 = (1 + Sqrt[5])/4; c10 = (3 + Sqrt[5])/4; c11 = (5 + Sqrt[5])/4; c12 = (7 + Sqrt[5])/4; c13 = (1 + Sqrt[5])/2; c14 = (3 + Sqrt[5])/2; c15 = (2 + Sqrt[5])/2; c16 = (5 + Sqrt[5])/2; c17 = (3 + Sqrt[5])/4; c18 = (5 + Sqrt[5])/4; c19 = (7 + Sqrt[5])/4; c20 = (9 + Sqrt[5])/4; c21 = (1 + Sqrt[5])/4; c22 = (3 + Sqrt[5])/4; c23 = (5 + Sqrt[5])/4; c24 = (7 + Sqrt[5])/4; c25 = (1 + Sqrt[5])/2; c26 = (3 + Sqrt[5])/2; c27 = (2 + Sqrt[5])/2; c28 = (5 + Sqrt[5])/2; c29 = (3 + Sqrt[5])/4; c30 = (5 + Sqrt[5])/4; c31 = (7 + Sqrt[5])/4; c32 = (9 + Sqrt[5])/4; c33 = (1 + Sqrt[5])/4; c34 = (3 + Sqrt[5])/4; c35 = (5 + Sqrt[5])/4; c36 = (7 + Sqrt[5])/4; c37 = (1 + Sqrt[5])/2; c38 = (3 + Sqrt[5])/2; c39 = (2 + Sqrt[5])/2; c40 = (5 + Sqrt[5])/2; c41 = (3 + Sqrt[5])/4; c42 = (5 + Sqrt[5])/4; c43 = (7 + Sqrt[5])/4; c44 = (9 + Sqrt[5])/4; c45 = (1 + Sqrt[5])/4; c46 = (3 + Sqrt[5])/4; c47 = (5 + Sqrt[5])/4; c48 = (7 + Sqrt[5])/4; c49 = (1 + Sqrt[5])/2; c50 = (3 + Sqrt[5])/2; c51 = (2 + Sqrt[5])/2; c52 = (5 + Sqrt[5])/2; c53 = (3 + Sqrt[5])/4; c54 = (5 + Sqrt[5])/4; c55 = (7 + Sqrt[5])/4; c56 = (9 + Sqrt[5])/4; c57 = (1 + Sqrt[5])/4; c58 = (3 + Sqrt[5])/4; c59 = (5 + Sqrt[5])/4; c60 = (7 + Sqrt[5])/4; c61 = (1 + Sqrt[5])/2; c62 = (3 + Sqrt[5])/2; c63 = (2 + Sqrt[5])/2; c64 = (5 + Sqrt[5])/2; c65 = (3 + Sqrt[5])/4; c66 = (5 + Sqrt[5])/4; c67 = (7 + Sqrt[5])/4; c68 = (9 + Sqrt[5])/4; c69 = (1 + Sqrt[5])/4; c70 = (3 + Sqrt[5])/4; c71 = (5 + Sqrt[5])/4; c72 = (7 + Sqrt[5])/4; c73 = (1 + Sqrt[5])/2; c74 = (3 + Sqrt[5])/2; c75 = (2 + Sqrt[5])/2; c76 = (5 + Sqrt[5])/2; c77 = (3 + Sqrt[5])/4; c78 = (5 + Sqrt[5])/4; c79 = (7 + Sqrt[5])/4; c80 = (9 + Sqrt[5])/4; c81 = (1 + Sqrt[5])/4; c82 = (3 + Sqrt[5])/4; c83 = (5 + Sqrt[5])/4; c84 = (7 + Sqrt[5])/4; c85 = (1 + Sqrt[5])/2; c86 = (3 + Sqrt[5])/2; c87 = (2 + Sqrt[5])/2; c88 = (5 + Sqrt[5])/2; c89 = (3 + Sqrt[5])/4; c90 = (5 + Sqrt[5])/4; c91 = (7 + Sqrt[5])/4; c92 = (9 + Sqrt[5])/4; c93 = (1 + Sqrt[5])/4; c94 = (3 + Sqrt[5])/4; c95 = (5 + Sqrt[5])/4; c96 = (7 + Sqrt[5])/4; c97 = (1 + Sqrt[5])/2; c98 = (3 + Sqrt[5])