Tables of k-Differential Strata

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January 20, 2018

Platonic Solids

Polyheron	Stratum of k-differential	Stratum of Covering	Genus
Tetrahedron:	$\mathcal{H}_2(-1^4)$	$\mathcal{H}_2(0^4)$	1
Cube:	$\mathcal{H}_4(-1^8)$	$\mathcal{H}_4(2^8)$	9
Octahedron:	$\mathcal{H}_3(-1^6)$	$\mathcal{H}_3(1^6)$	4
Dodecahedron:	$\mathcal{H}_{10}(-1^{20})$	$\mathcal{H}_{10}(8^{20})$	81
Icosahedron:	$\mathcal{H}_6(-1^{12})$	$\mathcal{H}_6(4^{12})$	25

Archemedian Solids

Polyheron	Stratum of k-differential	Stratum of Covering	Gen
Truncated Tetrahedron:	$\mathcal{H}_6(-1^{12})$	$\mathcal{H}_6(4^{12})$	
Cuboctahedron:	$\mathcal{H}_6(-1^{12})$	$\mathcal{H}_6(4^{12})$	
Truncated Cube:	$\mathcal{H}_{12}(-1^{24})$	$\mathcal{H}_{12}(10^{24})$	1
Truncated Octahedron:	$\mathcal{H}_{12}(-1^{24})$	$\mathcal{H}_{12}(10^{24})$	1
Rhombicuboctahedron:	$\mathcal{H}_{12}(-1^{24})$	$\mathcal{H}_{12}(10^{24})$	1
Truncated Cuboctahedron:	$\mathcal{H}_{24}(-1^{48})$	$\mathcal{H}_{24}(22^{48})$	5
Snub Cube:	$\mathcal{H}_{12}(-1^{24})$	$\mathcal{H}_{12}(10^{24})$	1
Icosidodecahedron:	$\mathcal{H}_{15}(-1^{30})$	$\mathcal{H}_{15}(13^{30})$	1
Truncated Dodecahedron:	$\mathcal{H}_{30}(-1^{60})$	$\mathcal{H}_{30}(28^{60})$	8
Truncated Icosahedron:	$\mathcal{H}_{30}(-1^{60})$	$\mathcal{H}_{30}(28^{60})$	8
Rhombicosidodecahedron:	$\mathcal{H}_{30}(-1^{60})$	$\mathcal{H}_{30}(28^{60})$	8
Truncated Icosidodecahedron:	$\mathcal{H}_{60}(-1^{120})$	$\mathcal{H}_{60}(58^{120})$	34
Snub Dodecahedron:	$\mathcal{H}_{30}(-1^{60})$	$\mathcal{H}_{30}(28^{60})$	8

	Polyheron	Stratum of k-differential	Stratum of Covering	Genu
	0	$\mathcal{H}_{12}(-4^1, -5^4)$	$\mathcal{H}_{12}(1^4, 6^4)$	1
	1	$\mathcal{H}_{30}(-5^1, -14^5)$	$\mathcal{H}_{30}(4^5, 7^{10})$	4
	2	$\mathcal{H}_{12}(-2^3, -3^6)$	$\mathcal{H}_{12}(4^6, 2^{18})$	3
	3	$\mathcal{H}_{24}(-2^4, -5^8)$	$\mathcal{H}_{24}(10^8, 18^8)$	11
	4	$\mathcal{H}_{60}(-2^5, -11^{10})$	$\mathcal{H}_{60}(28^{10}, 48^{10})$	38
	5	$\mathcal{H}_{15}(-1^{10}, -2^{10})$	$\mathcal{H}_{15}(13^{10}, 12^{10})$	12
	6	$\mathcal{H}_6(-3^1, -1^3, -2^2)$	$\mathcal{H}_6(0^3, 4^3, 1^4)$	
	7	$\mathcal{H}_{12}(-4^1, -2^4, -3^4)$	$\mathcal{H}_{12}(1^4, 4^8, 2^{12})$	3
	8	$\mathcal{H}_{30}(-5^1, -5^5, -6^5)$	$\mathcal{H}_{30}(4^5, 4^{25}, 3^{30})$	10
	9	$\mathcal{H}_{12}(-4^1, -2^4, -3^4)$	$\mathcal{H}_{12}(1^4, 4^8, 2^{12})$	3
	10	$\mathcal{H}_{30}(-5^1, -5^5, -6^5)$	$\mathcal{H}_{30}(4^5, 4^{25}, 3^{30})$	10
Johnson Solids	11	$\mathcal{H}_6(-2^3, -3^2)$	$\mathcal{H}_6(1^6, 0^6)$	
	12	$\mathcal{H}_6(-1^2, -2^5)$	$\mathcal{H}_6(4^2, 1^{10})$	1
	13	$\mathcal{H}_6(-3^2, -1^6)$	$\mathcal{H}_6(0^6, 4^6)$	1
	14	$\mathcal{H}_6(-2^2, -1^8)$	$\mathcal{H}_6(1^4, 4^8)$	1
	15	$\mathcal{H}_6(-1^2, -1^{10})$	$\mathcal{H}_6(4^2, 4^{10})$	2
	16	$\mathcal{H}_6(-2^2, -1^8)$	$\mathcal{H}_6(1^4, 4^8)$	1
	17	$\mathcal{H}_{12}(-2^9, -1^6)$	$\mathcal{H}_{12}(4^{18}, 10^6)$	6
	18	$\mathcal{H}_{24}(-3^8, -2^{12})$	$\mathcal{H}_{24}(6^{24}, 10^{24})$	19
	19	$\mathcal{H}_{60}(-5^{10}, -2^5, -6^{10})$	$\mathcal{H}_{60}(10^{50}, 28^{10}, 8^{60})$	63
	20	$\mathcal{H}_{30}(-11^5, -1^{10}, -3^{10})$	$\mathcal{H}_{30}(18^5, 28^{10}, 8^{30})$	30
	21	$\mathcal{H}_{12}(-2^3, -1^6, -2^6)$	$\mathcal{H}_{12}(4^6, 10^6, 4^{12})$	6
	22	$\mathcal{H}_{24}(-3^8, 2^8, -2^4)$	$\mathcal{H}_{24}(6^{24}, 12^{16}, 10^8)$	20
	23	$\mathcal{H}_{60}(-2^5, -5^{10}, -6^{10})$	$\mathcal{H}_{60}(28^{10}, 10^{50}, 8^{60})$	63