

In[2]:= << LieART`

LieART 2.0.0

last revised 29 November 2019

In[14]:= DecomposeProduct[Irrep[A][3, 0, 0, 1],

Irrep[A][0, 0, 1, 0], Irrep[A][1, 0, 0, 1], Irrep[A][1, 0, 0, 1]]

DecomposeProduct[Irrep[A][0, 2, 1, 0], Irrep[A][0, 0, 1, 0],

Irrep[A][1, 0, 0, 1], Irrep[A][1, 0, 0, 1]]

DecomposeProduct[Irrep[A][0, 0, 1, 1], Irrep[A][0, 0, 1, 0], Irrep[A][1, 0, 0, 1]]

DecomposeProduct[Irrep[A][1, 3, 0, 0], Irrep[A][0, 0, 1, 0],

Irrep[A][1, 0, 0, 1], Irrep[A][1, 0, 0, 1], Irrep[A][1, 0, 0, 1]]

Out[14]= $2(1) + 15(24) + 15(75) + 32(126) + 13(\overline{126}) + 7(126') + 19(175') + 5(\overline{175'}) + 28(200) + 26(224) +$
 $2(\overline{224}) + 4(700') + 7(\overline{700'}) + 3(924) + 17(1000) + 36(1024) + 44(1050') + 14(\overline{1050'}) + 4(1176) +$
 $25(1701) + 5(\overline{1701}) + 21(1750) + \overline{1750} + 12(2250) + \overline{2250} + 16(2700) + 5(\overline{2700}) + 3(3024) +$
 $3(3675') + 3(4400) + 6(4725) + 15(4950) + 4(\overline{4950}) + 2(5600) + 3(\overline{5600}) + 20(6125) +$
 $3(7776) + 6(8624) + \overline{8624} + 2(12000) + 2(12600) + 17199 + 4(17325) + \overline{17325} + 2(24576)$

Out[15]= $1 + 12(24) + 29(75) + 27(126) + 21(\overline{126}) + 126' + 34(175') + 21(\overline{175'}) + 18(200) + 14(224) + 6(\overline{224}) +$
 $22(700') + 36(\overline{700'}) + 4(1000) + 72(1024) + 22(1050') + 19(\overline{1050'}) + 32(1176) + 2(1176') +$
 $\overline{1176} + 35(1701) + 21(\overline{1701}) + 5(1750) + 2(\overline{1750}) + 3(2250) + 4(\overline{2250}) + 28(2700) + 32(\overline{2700}) +$
 $22(3024) + 14(\overline{3024}) + 2(3150) + \overline{3150} + 7(4725) + 5(\overline{4725}) + 2(4950) + 2(\overline{4950}) + 8(5600) +$
 $18(\overline{5600}) + 25(6125) + 2(8400') + 4(\overline{8400'}) + 5(8624) + 2(\overline{8624}) + 9000 + \overline{9625} + 18(12000) +$
 $4(17325) + 6(\overline{17325}) + 4(22176) + 2(\overline{22176}) + 23100 + \overline{23100} + 24576 + \overline{25200} + 59049$

Out[16]= $1 + 4(24) + 5(75) + 2(126) + 5(\overline{126}) + 175' + 4(\overline{175'}) + 2(200) + 2(\overline{224}) + 700' + 3(1024) + \overline{1050'} + \overline{1701}$

Out[17]= $2(1) + 36(24) + 105(75) + 141(126) + 70(\overline{126}) + 36(126') + 210(175') + 70(\overline{175'}) + 91(200) + 158(224) +$
 $18(\overline{224}) + 115(700') + 288(\overline{700'}) + 25(924) + 60(1000) + 412(1024) + 252(1050') + 109(\overline{1050'}) +$
 $228(1176) + 77(1176') + 5(\overline{1176'}) + 451(1701) + 117(\overline{1701}) + 188(1750) + 14(\overline{1750}) + 111(2250) +$
 $33(\overline{2250}) + 4(2376) + 335(2700) + 240(\overline{2700}) + 375(3024) + 90(\overline{3024}) + 120(3150) + 6(\overline{3150}) +$
 $9(3675') + 6(3850') + 3(3900) + 49(4125) + \overline{4125} + 63(4400) + 2(\overline{4400}) + 269(4725) + 39(\overline{4725}) +$
 $105(4950) + 42(\overline{4950}) + 108(5600) + 339(\overline{5600}) + 342(6125) + 51(7776) + 2(\overline{7776}) + 36(8400') +$
 $175(\overline{8400'}) + 234(8624) + 45(\overline{8624}) + 45(9000) + 15(9625') + 68(\overline{9625'}) + 6(11550'') + 303(12000) +$
 $69(12474) + 2(\overline{12474}) + 27(12600) + 8(\overline{12600}) + 9(17199) + 3(\overline{17199}) + 183(17325) +$
 $135(\overline{17325}) + 48(21600) + \overline{21600} + 261(22176) + 45(\overline{22176}) + 6(\overline{22176'}) + 60(23100) +$
 $57(\overline{23100}) + 49(23100') + 6(\overline{23100'}) + 9(24024) + 75(24576) + 9(25025) + 18(25200) +$
 $99(25200) + 3(25725) + 15(26950) + 12(\overline{26950}) + 95(28000) + 9(\overline{28000}) + 34(31200) +$
 $3(\overline{31200}) + 9(32076) + 32(39424) + 3(\overline{39424}) + 5(44226) + 3(45500') + 11(\overline{50050'}) + 4(\overline{51975}) +$
 $6(55125) + 60(\overline{55125}) + 75(59049) + 9(61425) + 18(68250) + 15(\overline{68250}) + 12(76800) +$
 $3(77175) + 2(\overline{78624}) + 7(\overline{84000}) + 3(86625) + 91125 + 39(93600) + 3(\overline{93600}) + 6(103950) +$
 $6(126126) + 6(\overline{126126}) + 6(143000) + 2(198450) + 3(205800) + 3(\overline{215600}) + 297000$