CKForms - Database for version 2.x

## Type A

g=su(2) | real rank g=0 | a-hyp rank g=0  
----------------------------  
##################  
g=sl(2,R) | real rank g=1 | a-hyp rank g=1  
----------------------------  
##################  
g=su(3) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(2) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(1,2) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=sl(2,R) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=sl(2,R) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=sl(3,R) | real rank g=2 | a-hyp rank g=1  
----------------------------  
#1: h=sl(2,R) + a torus of 1 non-compact dimensions | real rank(h)=2 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=sl(2,R) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-true | L2-false | L3-false  
----  
##################  
g=su(4) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(3) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=so(5) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(2)+su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(2)+su(2) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(1,3) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=su(1,2) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(3) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=sl(2,R)+su(2) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(2,2) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=su(1,2) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#2: h=su(1,2) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=so(2,3) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=so(4,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=sl(2,R)+su(2) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=sl(2,R)+sl(2,R) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=sl(2,C) + a torus of 1 non-compact dimensions | real rank(h)=2 | ahyp rank=1  
 | L0-true | L1-false | L2-false | L3-false  
----  
#8: h=sl(2,R)+sl(2,R) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=su(2)+su(2) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=sl(2,H) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=so(5) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#2: h=so(4,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,R)+su(2) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=sl(2,C) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(2)+su(2) + a torus of 1 non-compact dimensions | real rank(h)=1 | ahyp rank=0  
 | L0-true | L1-false | L2-false | L3-false  
----  
##################  
g=sl(4,R) | real rank g=3 | a-hyp rank g=2  
----------------------------  
#1: h=sl(3,R) + a torus of 1 non-compact dimensions | real rank(h)=3 | ahyp rank=1  
 | L0-true | L1-false | L2-false | L3-false  
----  
#2: h=so(2,3) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-true | L2-false | L3-false  
----  
#3: h=su(2)+su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=sl(2,R)+sl(2,R) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-true | L2-false | L3-false  
----  
#5: h=sl(2,R)+sl(2,R) + a torus of 1 non-compact dimensions | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=sl(2,C) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=sl(2,C) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=su(5) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(2)+su(3) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(4) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=so(5) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(1,4) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=su(2)+su(1,2) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(2,R)+su(3) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(1,3) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(4) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=so(4,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(2,3) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=sl(2,R)+su(1,2) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2)+su(1,2) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=su(2)+su(3) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=su(2,2) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(1,3) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=so(2,3) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=sl(5,R) | real rank g=4 | a-hyp rank g=2  
----------------------------  
#1: h=sl(2,R)+sl(3,R) + a torus of 1 non-compact dimensions | real rank(h)=4 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(4,R) + a torus of 1 non-compact dimensions | real rank(h)=4 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=so(5) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=so(2,3) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-true | L2-false | L3-false  
----  
#5: h=so(4,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################

g=su(6) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(3)+su(3) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2)+su(4) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(5) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(3) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(2)+su(3) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=su(4) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=sp(3) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(1,5) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=su(1,2)+su(3) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2)+su(1,3) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,R)+su(4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(1,4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(5) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=sl(2,H) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(2,4) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=su(1,2)+su(1,2) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(3)+su(1,2) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=su(2)+su(2,2) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=sl(2,R)+su(1,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(2)+su(4) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=su(2,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=su(1,4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=su(1,2) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=su(2)+su(1,2) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=su(2,2) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=sp(1,2) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=su(3,3) | real rank g=3 | a-hyp rank g=3  
----------------------------  
#1: h=sl(3,C) + a torus of 1 non-compact dimensions | real rank(h)=3 | ahyp rank=1  
 | L0-true | L1-false | L2-false | L3-false  
----  
#2: h=su(1,2)+su(1,2) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=su(3)+su(3) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=sl(2,R)+su(2,2) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(2)+su(1,3) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=su(2)+su(1,3) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=su(2,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=su(2,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=sl(2,R)+su(3) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=sl(2,R)+su(1,2) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=su(1,3) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=sl(4,R) | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#13: h=sp(3,R) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=sl(3,H) | real rank g=2 | a-hyp rank g=1  
----------------------------  
#1: h=sl(3,C) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2)+sl(2,H) + a torus of 1 non-compact dimensions | real rank(h)=2 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(2)+sl(3,R) | real rank(h)=2 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(1,3) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-true | L2-false | L3-false  
----  
#5: h=sp(3) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=sp(1,2) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-true | L2-false | L3-false  
----  
##################  
g=sl(6,R) | real rank g=5 | a-hyp rank g=3  
----------------------------  
#1: h=sl(3,R)+sl(3,R) + a torus of 1 non-compact dimensions | real rank(h)=5 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#2: h=sl(3,C) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=sl(2,R)+sl(4,R) + a torus of 1 non-compact dimensions | real rank(h)=5 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=sl(5,R) + a torus of 1 non-compact dimensions | real rank(h)=5 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#5: h=sl(3,R) | real rank(h)=2 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=sl(2,R)+sl(3,R) | real rank(h)=3 | ahyp rank=2  
 | L0-false | L1-false | L2-false | L3-true  
----  
#7: h=su(4) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=su(2,2) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=sl(2,H) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=sl(4,R) | real rank(h)=3 | ahyp rank=2  
 | L0-false | L1-false | L2-false | L3-true  
----  
#11: h=sp(3,R) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-true | L2-false | L3-false  
----  
##################  
g=su(7) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(3)+su(4) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2)+su(5) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(6) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=so(7) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(1,6) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=su(1,2)+su(4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(3)+su(1,3) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(2)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=sl(2,R)+su(5) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(1,5) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=su(6) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=so(6,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(2,5) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=su(1,2)+su(1,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(3)+su(2,2) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(1,2)+su(4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=su(2)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=sl(2,R)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=su(2)+su(5) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=su(2,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=su(1,5) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=so(2,5) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(3,4) | real rank g=3 | a-hyp rank g=3  
----------------------------  
#1: h=su(1,2)+su(2,2) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(1,2)+su(1,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=su(3)+su(1,3) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=su(3)+su(4) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=sl(2,R)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=su(2)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=su(2)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=su(3,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=su(2,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=so(4,3) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=sl(7,R) | real rank g=6 | a-hyp rank g=3  
----------------------------  
#1: h=sl(3,R)+sl(4,R) + a torus of 1 non-compact dimensions | real rank(h)=6 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(2,R)+sl(5,R) + a torus of 1 non-compact dimensions | real rank(h)=6 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(6,R) + a torus of 1 non-compact dimensions | real rank(h)=6 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=so(7) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=so(2,5) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=so(4,3) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-true | L2-false | L3-false  
----  
#7: h=so(6,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################

g=su(8) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(4)+su(4) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(3)+su(5) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(2)+su(6) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(7) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(2)+su(4) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=so(8) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=sp(4) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(1,7) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=su(1,3)+su(4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(1,2)+su(5) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(3)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(2)+su(1,5) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=sl(2,R)+su(6) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=su(1,6) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=su(7) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=so(1,7) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(2,6) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=su(4)+su(2,2) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(1,3)+su(1,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(1,2)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(3)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(1,2)+su(5) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=su(2)+su(2,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=sl(2,R)+su(1,5) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=su(2)+su(6) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=su(2,5) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=su(1,6) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=su(2)+su(1,3) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=sp(1,3) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=su(3,5) | real rank g=3 | a-hyp rank g=3  
----------------------------  
#1: h=su(1,3)+su(2,2) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(4)+su(1,3) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=su(1,2)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(1,2)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=su(3)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=su(3)+su(5) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=su(2)+su(3,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=sl(2,R)+su(2,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=su(2)+su(1,5) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=su(3,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=su(2,5) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=so(3,5) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(4,4) | real rank g=4 | a-hyp rank g=4  
----------------------------  
#1: h=sl(4,C) + a torus of 1 non-compact dimensions | real rank(h)=4 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#2: h=su(2,2)+su(2,2) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(1,3)+su(1,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=su(4)+su(4) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=su(1,2)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=su(1,2)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=su(3)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=su(3)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=sl(2,R)+su(3,3) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=su(2)+su(2,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=su(2)+su(2,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=su(3,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=su(3,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#14: h=su(2)+su(2,2) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#15: h=sl(2,R)+su(4) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#16: h=sl(2,R)+su(1,3) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#17: h=sl(2,R)+su(2,2) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#18: h=so\*(8) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#19: h=so(4,4) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#20: h=sp(2,2) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#21: h=sp(4,R) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=sl(4,H) | real rank g=3 | a-hyp rank g=2  
----------------------------  
#1: h=sl(4,C) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(2,H)+sl(2,H) + a torus of 1 non-compact dimensions | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(2)+sl(3,H) + a torus of 1 non-compact dimensions | real rank(h)=3 | ahyp rank=1  
 | L0-true | L1-false | L2-false | L3-false  
----  
#4: h=su(2)+sl(4,R) | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=sl(2,R)+sl(2,H) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-true | L2-false | L3-false  
----  
#6: h=so\*(8) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-true | L2-false | L3-false  
----  
#7: h=sp(4) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=sp(1,3) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=sp(2,2) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-true | L2-false | L3-false  
----  
##################  
g=sl(8,R) | real rank g=7 | a-hyp rank g=4  
----------------------------  
#1: h=sl(4,R)+sl(4,R) + a torus of 1 non-compact dimensions | real rank(h)=7 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(4,C) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=sl(4,C) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=sl(3,R)+sl(5,R) + a torus of 1 non-compact dimensions | real rank(h)=7 | ahyp rank=3  
 | L0-true | L1-false | L2-false | L3-false  
----  
#5: h=sl(2,R)+sl(6,R) + a torus of 1 non-compact dimensions | real rank(h)=7 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=sl(7,R) + a torus of 1 non-compact dimensions | real rank(h)=7 | ahyp rank=3  
 | L0-true | L1-false | L2-false | L3-false  
----  
#7: h=su(2)+sl(2,H) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=sl(2,R)+sl(4,R) | real rank(h)=4 | ahyp rank=3  
 | L0-false | L1-false | L2-false | L3-true  
----  
#9: h=so(8) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=so(4,4) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-true | L2-false | L3-false  
----  
#11: h=so(3,5) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=so(1,7) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=sp(4,R) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-true | L2-false | L3-false  
----  
##################  
g=su(9) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(4)+su(5) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(3)+su(6) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(2)+su(7) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(8) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(3)+su(3) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=so(9) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(1,8) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=su(1,3)+su(5) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(4)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(1,2)+su(6) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(3)+su(1,5) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(2)+su(1,6) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=sl(2,R)+su(7) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=su(1,7) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=su(8) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=so(8,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(2,7) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=su(2,2)+su(5) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(1,3)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(4)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(1,2)+su(1,5) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(3)+su(2,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=su(1,2)+su(6) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=su(2)+su(2,5) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=sl(2,R)+su(1,6) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=su(2)+su(7) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=su(2,6) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=su(1,7) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=so(2,7) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(3,6) | real rank g=3 | a-hyp rank g=3  
----------------------------  
#1: h=su(2,2)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(1,3)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(4)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=su(1,3)+su(5) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=su(1,2)+su(2,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=su(3)+su(3,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=su(1,2)+su(1,5) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=su(3)+su(6) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=su(2)+su(3,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=sl(2,R)+su(2,5) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=su(2)+su(1,6) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=su(3,5) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#13: h=su(2,6) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#14: h=su(1,2)+su(3) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#15: h=so(6,3) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=su(4,5) | real rank g=4 | a-hyp rank g=4  
----------------------------  
#1: h=su(2,2)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(1,3)+su(2,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=su(1,3)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=su(4)+su(1,4) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=su(4)+su(5) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=su(1,2)+su(3,3) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=su(1,2)+su(2,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=su(3)+su(2,4) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=su(3)+su(1,5) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=sl(2,R)+su(3,4) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=su(2)+su(3,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=su(2)+su(2,5) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=su(4,4) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#14: h=su(3,5) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#15: h=su(1,2)+su(1,2) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#16: h=so(4,5) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=sl(9,R) | real rank g=8 | a-hyp rank g=4  
----------------------------  
#1: h=sl(4,R)+sl(5,R) + a torus of 1 non-compact dimensions | real rank(h)=8 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(3,R)+sl(6,R) + a torus of 1 non-compact dimensions | real rank(h)=8 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,R)+sl(7,R) + a torus of 1 non-compact dimensions | real rank(h)=8 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=sl(8,R) + a torus of 1 non-compact dimensions | real rank(h)=8 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=sl(3,R)+sl(3,R) | real rank(h)=4 | ahyp rank=2  
 | L0-false | L1-false | L2-false | L3-true  
----  
#6: h=so(9) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=so(2,7) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=so(4,5) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-true | L2-false | L3-false  
----  
#9: h=so(6,3) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=so(8,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################

## Type B

g=so(5) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(2)+su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(2) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=so(2,3) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=sl(2,R)+sl(2,R) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(2,C) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=sl(2,R) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=sl(2,R) + a torus of 1 non-compact dimensions | real rank(h)=2 | ahyp rank=1  
 | L0-true | L1-false | L2-false | L3-false  
----  
#5: h=sl(2,R) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=su(2) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(4,1) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=sl(2,C) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2)+su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=su(2) + a torus of 1 non-compact dimensions | real rank(h)=1 | ahyp rank=0  
 | L0-true | L1-false | L2-false | L3-false  
----  
#4: h=sl(2,R) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=so(7) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(2)+su(2)+su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(4) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=G2c | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=so(5) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=so(2,5) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=sl(2,R)+sl(2,R)+su(2) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(2,R)+sl(2,C) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,R)+su(2)+su(2) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=su(2,2) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=sl(2,H) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=so(4,1) + a torus of 1 non-compact dimensions | real rank(h)=2 | ahyp rank=1  
 | L0-true | L1-false | L2-false | L3-false  
----  
#7: h=so(2,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=so(5) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(4,3) | real rank g=3 | a-hyp rank g=3  
----------------------------  
#1: h=sl(2,R)+sl(2,R)+sl(2,R) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(2,R)+sl(2,C) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=su(2)+sl(2,C) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=su(2)+su(2)+su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=sl(4,R) | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#6: h=su(2,2) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=G2(2) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=so(2,3) + a torus of 1 non-compact dimensions | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#9: h=so(2,3) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=so(4,1) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(6,1) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=su(2)+sl(2,C) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(2,R)+su(2)+su(2) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,H) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(4) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=so(5) + a torus of 1 non-compact dimensions | real rank(h)=1 | ahyp rank=0  
 | L0-true | L1-false | L2-false | L3-false  
----  
#6: h=so(4,1) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=so(9) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(2)+su(2)+so(5) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2)+su(4) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=so(8) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(2)+su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=so(7) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=so(2,7) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=sl(2,R)+sl(2,R)+so(5) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2)+su(2)+so(2,3) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,C)+so(4,1) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(2)+su(2,2) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=sl(2,R)+sl(2,H) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=sl(2,R)+su(4) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=so\*(8) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=so(1,7) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=so(6,1) + a torus of 1 non-compact dimensions | real rank(h)=2 | ahyp rank=1  
 | L0-true | L1-false | L2-false | L3-false  
----  
#10: h=so(2,5) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=so(7) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(4,5) | real rank g=4 | a-hyp rank g=4  
----------------------------  
#1: h=sl(2,R)+sl(2,R)+so(2,3) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(2,C)+so(2,3) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=sl(2,C)+so(4,1) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=su(2)+su(2)+so(4,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=su(2)+su(2)+so(5) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=sl(2,R)+sl(4,R) | real rank(h)=4 | ahyp rank=3  
 | L0-true | L1-false | L2-false | L3-false  
----  
#7: h=sl(2,R)+su(2,2) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=su(2)+su(2,2) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=su(2)+sl(2,H) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=so(4,4) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=so(3,5) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=sl(2,R) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=sl(2,R)+sl(2,R) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#14: h=so(4,3) + a torus of 1 non-compact dimensions | real rank(h)=4 | ahyp rank=3  
 | L0-true | L1-false | L2-false | L3-false  
----  
#15: h=so(4,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#16: h=so(2,5) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(6,3) | real rank g=3 | a-hyp rank g=3  
----------------------------  
#1: h=sl(2,R)+sl(2,R)+so(4,1) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(2,C)+so(2,3) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(2)+su(2)+so(2,3) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=sl(2,C)+so(5) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=su(2)+sl(4,R) | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#6: h=sl(2,R)+su(2,2) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=sl(2,R)+sl(2,H) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=su(2)+su(4) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=so(3,5) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=so\*(8) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=sl(2,R)+su(2) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=so(2,5) + a torus of 1 non-compact dimensions | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#13: h=so(4,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#14: h=so(6,1) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(8,1) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=sl(2,C)+so(5) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2)+su(2)+so(4,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(2)+sl(2,H) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=sl(2,R)+su(4) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=so(1,7) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=so(8) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=so(7) + a torus of 1 non-compact dimensions | real rank(h)=1 | ahyp rank=0  
 | L0-true | L1-false | L2-false | L3-false  
----  
#8: h=so(6,1) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=so(11) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(4)+so(5) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(2)+su(2)+so(7) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(2)+so(8) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=so(10) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=so(9) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=so(2,9) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=su(2,2)+so(5) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(2,H)+so(4,1) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(4)+so(2,3) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=sl(2,R)+sl(2,R)+so(7) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=sl(2,C)+so(6,1) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=su(2)+su(2)+so(2,5) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=su(2)+so\*(8) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=sl(2,R)+so(1,7) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=sl(2,R)+so(8) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=so(2,8) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=so(9,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=so(8,1) + a torus of 1 non-compact dimensions | real rank(h)=2 | ahyp rank=1  
 | L0-true | L1-false | L2-false | L3-false  
----  
#13: h=so(2,7) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#14: h=so(9) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(4,7) | real rank g=4 | a-hyp rank g=4  
----------------------------  
#1: h=sl(4,R)+so(4,1) | real rank(h)=4 | ahyp rank=3  
 | L0-true | L1-false | L2-false | L3-false  
----  
#2: h=su(2,2)+so(2,3) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,H)+so(2,3) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=su(2,2)+so(5) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=su(4)+so(4,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=sl(2,R)+sl(2,R)+so(2,5) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=sl(2,C)+so(4,3) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=su(2)+su(2)+so(4,3) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=sl(2,C)+so(6,1) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=su(2)+su(2)+so(7) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=su(2)+so(4,4) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#12: h=sl(2,R)+so(3,5) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#13: h=sl(2,R)+so\*(8) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#14: h=su(2)+so(1,7) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#15: h=so(4,6) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#16: h=so(3,7) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#17: h=so(6,3) + a torus of 1 non-compact dimensions | real rank(h)=4 | ahyp rank=3  
 | L0-true | L1-false | L2-false | L3-false  
----  
#18: h=so(4,5) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#19: h=so(2,7) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(6,5) | real rank g=5 | a-hyp rank g=5  
----------------------------  
#1: h=sl(4,R)+so(2,3) | real rank(h)=5 | ahyp rank=4  
 | L0-true | L1-false | L2-false | L3-false  
----  
#2: h=su(2,2)+so(2,3) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=su(2,2)+so(4,1) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=sl(2,H)+so(4,1) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=sl(2,H)+so(5) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=su(4)+so(5) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=sl(2,R)+sl(2,R)+so(4,3) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=sl(2,C)+so(4,3) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=sl(2,C)+so(2,5) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=su(2)+su(2)+so(2,5) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=su(2)+su(2)+so(6,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=sl(2,R)+so(4,4) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#13: h=sl(2,R)+so(3,5) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#14: h=su(2)+so(3,5) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#15: h=su(2)+so\*(8) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#16: h=so(5,5) | real rank(h)=5 | ahyp rank=4  
 | L0-true | L1-false | L2-false | L3-false  
----  
#17: h=so(4,6) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#18: h=sl(2,R) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#19: h=so(4,5) + a torus of 1 non-compact dimensions | real rank(h)=5 | ahyp rank=4  
 | L0-true | L1-false | L2-false | L3-false  
----  
#20: h=so(4,5) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#21: h=so(6,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(8,3) | real rank g=3 | a-hyp rank g=3  
----------------------------  
#1: h=sl(4,R)+so(5) | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#2: h=su(2,2)+so(4,1) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,H)+so(2,3) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(4)+so(2,3) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=sl(2,R)+sl(2,R)+so(6,1) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=sl(2,C)+so(2,5) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=su(2)+su(2)+so(4,3) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=sl(2,C)+so(7) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=su(2)+so(3,5) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=sl(2,R)+so\*(8) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=sl(2,R)+so(1,7) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=su(2)+so(8) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=so(3,7) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#14: h=so(2,8) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#15: h=so(2,7) + a torus of 1 non-compact dimensions | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#16: h=so(6,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#17: h=so(8,1) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(10,1) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=sl(2,H)+so(5) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(4)+so(4,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,C)+so(7) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(2)+su(2)+so(6,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(2)+so(1,7) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=sl(2,R)+so(8) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=so(9,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=so(10) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=so(9) + a torus of 1 non-compact dimensions | real rank(h)=1 | ahyp rank=0  
 | L0-true | L1-false | L2-false | L3-false  
----  
#10: h=so(8,1) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=so(13) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=su(4)+so(7) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=so(5)+so(8) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(2)+su(2)+so(9) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(2)+so(10) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=so(12) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=so(11) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=so(2,11) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=su(2,2)+so(7) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=sl(2,H)+so(6,1) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=su(4)+so(2,5) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=so(5)+so\*(8) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=so(4,1)+so(1,7) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=so(2,3)+so(8) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=sl(2,R)+sl(2,R)+so(9) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=sl(2,C)+so(8,1) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=su(2)+su(2)+so(2,7) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=su(2)+so(2,8) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=sl(2,R)+so(9,1) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#12: h=sl(2,R)+so(10) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=so(2,10) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#14: h=so(11,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#15: h=so(10,1) + a torus of 1 non-compact dimensions | real rank(h)=2 | ahyp rank=1  
 | L0-true | L1-false | L2-false | L3-false  
----  
#16: h=so(2,9) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#17: h=so(11) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(4,9) | real rank g=4 | a-hyp rank g=4  
----------------------------  
#1: h=sl(4,R)+so(6,1) | real rank(h)=4 | ahyp rank=3  
 | L0-true | L1-false | L2-false | L3-false  
----  
#2: h=su(2,2)+so(2,5) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,H)+so(4,3) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(4)+so(4,3) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=su(2,2)+so(7) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=so(5)+so(4,4) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=so(4,1)+so(3,5) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=so(2,3)+so\*(8) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=so(2,3)+so(1,7) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=so(4,1)+so(8) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=sl(2,R)+sl(2,R)+so(2,7) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#12: h=sl(2,C)+so(6,3) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#13: h=su(2)+su(2)+so(4,5) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#14: h=sl(2,C)+so(8,1) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#15: h=su(2)+su(2)+so(9) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#16: h=su(2)+so(4,6) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#17: h=sl(2,R)+so(3,7) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#18: h=sl(2,R)+so(2,8) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#19: h=su(2)+so(9,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#20: h=so(4,8) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#21: h=so(3,9) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#22: h=so(8,3) + a torus of 1 non-compact dimensions | real rank(h)=4 | ahyp rank=3  
 | L0-true | L1-false | L2-false | L3-false  
----  
#23: h=so(4,7) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#24: h=so(2,9) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(6,7) | real rank g=6 | a-hyp rank g=6  
----------------------------  
#1: h=sl(4,R)+so(4,3) | real rank(h)=6 | ahyp rank=5  
 | L0-true | L1-false | L2-false | L3-false  
----  
#2: h=su(2,2)+so(4,3) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=su(2,2)+so(2,5) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=sl(2,H)+so(2,5) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=sl(2,H)+so(6,1) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=su(4)+so(6,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=su(4)+so(7) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=so(2,3)+so(4,4) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=so(2,3)+so(3,5) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=so(4,1)+so(3,5) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=so(4,1)+so\*(8) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=so(5)+so\*(8) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=so(5)+so(1,7) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#14: h=sl(2,R)+sl(2,R)+so(4,5) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#15: h=sl(2,C)+so(4,5) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#16: h=sl(2,C)+so(6,3) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#17: h=su(2)+su(2)+so(6,3) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#18: h=su(2)+su(2)+so(2,7) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#19: h=sl(2,R)+so(5,5) | real rank(h)=6 | ahyp rank=5  
 | L0-true | L1-false | L2-false | L3-false  
----  
#20: h=sl(2,R)+so(4,6) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#21: h=su(2)+so(4,6) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#22: h=su(2)+so(3,7) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#23: h=so(6,6) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#24: h=so(5,7) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#25: h=sl(2,R) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#26: h=so(6,5) + a torus of 1 non-compact dimensions | real rank(h)=6 | ahyp rank=5  
 | L0-true | L1-false | L2-false | L3-false  
----  
#27: h=so(6,5) + a torus of 1 compact dimensions | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#28: h=so(4,7) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(8,5) | real rank g=5 | a-hyp rank g=5  
----------------------------  
#1: h=sl(4,R)+so(2,5) | real rank(h)=5 | ahyp rank=4  
 | L0-true | L1-false | L2-false | L3-false  
----  
#2: h=su(2,2)+so(4,3) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,H)+so(4,3) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=su(2,2)+so(6,1) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=su(4)+so(2,5) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=sl(2,H)+so(7) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=so(4,1)+so(4,4) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=so(2,3)+so(3,5) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=so(2,3)+so\*(8) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#10: h=so(5)+so(3,5) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=so(4,1)+so(1,7) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=so(5)+so(8) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=sl(2,R)+sl(2,R)+so(6,3) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#14: h=sl(2,C)+so(4,5) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#15: h=su(2)+su(2)+so(4,5) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#16: h=sl(2,C)+so(2,7) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#17: h=su(2)+su(2)+so(8,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#18: h=su(2)+so(5,5) | real rank(h)=5 | ahyp rank=4  
 | L0-true | L1-false | L2-false | L3-false  
----  
#19: h=sl(2,R)+so(4,6) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#20: h=sl(2,R)+so(3,7) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#21: h=su(2)+so(2,8) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#22: h=so(5,7) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#23: h=so(4,8) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#24: h=so(4,7) + a torus of 1 non-compact dimensions | real rank(h)=5 | ahyp rank=4  
 | L0-true | L1-false | L2-false | L3-false  
----  
#25: h=so(6,5) + a torus of 1 compact dimensions | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#26: h=so(8,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(10,3) | real rank g=3 | a-hyp rank g=3  
----------------------------  
#1: h=sl(4,R)+so(7) | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#2: h=su(2,2)+so(6,1) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=sl(2,H)+so(2,5) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(4)+so(4,3) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=so(5)+so(3,5) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=so(4,1)+so\*(8) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=so(2,3)+so(1,7) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=so(2,3)+so(8) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=sl(2,R)+sl(2,R)+so(8,1) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=sl(2,C)+so(2,7) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=su(2)+su(2)+so(6,3) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#12: h=sl(2,C)+so(9) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=su(2)+so(3,7) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#14: h=sl(2,R)+so(2,8) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#15: h=sl(2,R)+so(9,1) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#16: h=su(2)+so(10) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#17: h=so(3,9) | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#18: h=so(2,10) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#19: h=so(2,9) + a torus of 1 non-compact dimensions | real rank(h)=3 | ahyp rank=2  
 | L0-true | L1-false | L2-false | L3-false  
----  
#20: h=so(8,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-true | L1-true | L2-false | L3-false  
----  
#21: h=so(10,1) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(12,1) | real rank g=1 | a-hyp rank g=1  
----------------------------  
#1: h=sl(2,H)+so(7) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(4)+so(6,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=so(5)+so(1,7) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=so(4,1)+so(8) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=sl(2,C)+so(9) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=su(2)+su(2)+so(8,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=su(2)+so(9,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=sl(2,R)+so(10) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=so(11,1) | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=so(12) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=so(11) + a torus of 1 non-compact dimensions | real rank(h)=1 | ahyp rank=0  
 | L0-true | L1-false | L2-false | L3-false  
----  
#12: h=so(10,1) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank=1  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=so(15) | real rank g=0 | a-hyp rank g=0  
----------------------------  
#1: h=so(7)+so(8) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=su(4)+so(9) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=so(5)+so(10) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(2)+su(2)+so(11) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=su(2)+so(12) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=so(14) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=su(2) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=su(2)+so(5) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=su(4) | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=so(13) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-true | L1-true | L2-false | L3-false  
----  
##################  
g=so(2,13) | real rank g=2 | a-hyp rank g=2  
----------------------------  
#1: h=so(7)+so\*(8) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=so(6,1)+so(1,7) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=so(2,5)+so(8) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=su(2,2)+so(9) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=sl(2,H)+so(8,1) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#6: h=su(4)+so(2,7) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#7: h=so(5)+so(2,8) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=so(4,1)+so(9,1) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=so(2,3)+so(10) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=sl(2,R)+sl(2,R)+so(11) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#11: h=sl(2,C)+so(10,1) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#12: h=su(2)+su(2)+so(2,9) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#13: h=su(2)+so(2,10) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#14: h=sl(2,R)+so(11,1) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#15: h=sl(2,R)+so(12) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#16: h=so(2,12) | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#17: h=so(13,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#18: h=so(12,1) + a torus of 1 non-compact dimensions | real rank(h)=2 | ahyp rank=1  
 | L0-true | L1-false | L2-false | L3-false  
----  
#19: h=so(2,11) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-true | L1-true | L2-false | L3-false  
----  
#20: h=so(13) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(4,11) | real rank g=4 | a-hyp rank g=4  
----------------------------  
#1: h=so(7)+so(4,4) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=so(6,1)+so(3,5) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=so(2,5)+so\*(8) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=so(4,3)+so(1,7) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#5: h=so(4,3)+so(8) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=sl(4,R)+so(8,1) | real rank(h)=4 | ahyp rank=3  
 | L0-true | L1-false | L2-false | L3-false  
----  
#7: h=su(2,2)+so(2,7) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#8: h=sl(2,H)+so(6,3) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=su(4)+so(4,5) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=su(2,2)+so(9) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=so(5)+so(4,6) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#12: h=so(4,1)+so(3,7) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#13: h=so(2,3)+so(2,8) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#14: h=so(2,3)+so(9,1) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#15: h=so(4,1)+so(10) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#16: h=sl(2,R)+sl(2,R)+so(2,9) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#17: h=sl(2,C)+so(8,3) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#18: h=su(2)+su(2)+so(4,7) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#19: h=sl(2,C)+so(10,1) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#20: h=su(2)+su(2)+so(11) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#21: h=su(2)+so(4,8) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#22: h=sl(2,R)+so(3,9) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#23: h=sl(2,R)+so(2,10) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#24: h=su(2)+so(11,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#25: h=so(4,10) | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#26: h=so(3,11) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#27: h=so(10,3) + a torus of 1 non-compact dimensions | real rank(h)=4 | ahyp rank=3  
 | L0-true | L1-false | L2-false | L3-false  
----  
#28: h=so(4,9) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-true | L1-true | L2-false | L3-false  
----  
#29: h=so(2,11) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(6,9) | real rank g=6 | a-hyp rank g=6  
----------------------------  
#1: h=so(2,5)+so(4,4) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=so(4,3)+so(3,5) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=so(4,3)+so\*(8) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=so(6,1)+so(3,5) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=so(2,5)+so(1,7) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=so(7)+so\*(8) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=so(6,1)+so(8) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=sl(4,R)+so(6,3) | real rank(h)=6 | ahyp rank=5  
 | L0-true | L1-false | L2-false | L3-false  
----  
#9: h=su(2,2)+so(4,5) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=sl(2,H)+so(4,5) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=su(2,2)+so(2,7) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=su(4)+so(6,3) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=sl(2,H)+so(8,1) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#14: h=su(4)+so(9) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#15: h=so(4,1)+so(5,5) | real rank(h)=6 | ahyp rank=5  
 | L0-true | L1-false | L2-false | L3-false  
----  
#16: h=so(2,3)+so(4,6) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#17: h=so(2,3)+so(3,7) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#18: h=so(5)+so(4,6) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#19: h=so(4,1)+so(2,8) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#20: h=so(5)+so(9,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#21: h=sl(2,R)+sl(2,R)+so(4,7) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#22: h=sl(2,C)+so(6,5) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#23: h=su(2)+su(2)+so(6,5) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#24: h=sl(2,C)+so(8,3) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#25: h=su(2)+su(2)+so(2,9) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#26: h=su(2)+so(6,6) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#27: h=sl(2,R)+so(5,7) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#28: h=sl(2,R)+so(4,8) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#29: h=su(2)+so(3,9) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#30: h=so(6,8) | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#31: h=so(5,9) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#32: h=su(2)+so(2,3) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#33: h=sl(2,R)+so(4,1) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#34: h=su(1,3) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#35: h=sl(4,R) | real rank(h)=3 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#36: h=so(8,5) + a torus of 1 non-compact dimensions | real rank(h)=6 | ahyp rank=5  
 | L0-true | L1-false | L2-false | L3-false  
----  
#37: h=so(6,7) + a torus of 1 compact dimensions | real rank(h)=6 | ahyp rank=6  
 | L0-true | L1-true | L2-false | L3-false  
----  
#38: h=so(4,9) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(8,7) | real rank g=7 | a-hyp rank g=7  
----------------------------  
#1: h=so(4,3)+so(4,4) | real rank(h)=7 | ahyp rank=7  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=so(4,3)+so(3,5) | real rank(h)=6 | ahyp rank=6  
 | L0-false | L1-false | L2-true | L3-false  
----  
#3: h=so(2,5)+so(3,5) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#4: h=so(2,5)+so\*(8) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=so(6,1)+so\*(8) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=so(6,1)+so(1,7) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=so(7)+so(1,7) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#8: h=so(7)+so(8) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#9: h=sl(4,R)+so(4,5) | real rank(h)=7 | ahyp rank=6  
 | L0-true | L1-false | L2-false | L3-false  
----  
#10: h=su(2,2)+so(4,5) | real rank(h)=6 | ahyp rank=6  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=su(2,2)+so(6,3) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=sl(2,H)+so(6,3) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=sl(2,H)+so(2,7) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#14: h=su(4)+so(2,7) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#15: h=su(4)+so(8,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#16: h=so(2,3)+so(5,5) | real rank(h)=7 | ahyp rank=6  
 | L0-true | L1-false | L2-false | L3-false  
----  
#17: h=so(2,3)+so(4,6) | real rank(h)=6 | ahyp rank=6  
 | L0-false | L1-false | L2-true | L3-false  
----  
#18: h=so(4,1)+so(4,6) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#19: h=so(4,1)+so(3,7) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#20: h=so(5)+so(3,7) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#21: h=so(5)+so(2,8) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#22: h=sl(2,R)+sl(2,R)+so(6,5) | real rank(h)=7 | ahyp rank=7  
 | L0-true | L1-true | L2-false | L3-false  
----  
#23: h=sl(2,C)+so(6,5) | real rank(h)=6 | ahyp rank=6  
 | L0-false | L1-false | L2-true | L3-false  
----  
#24: h=sl(2,C)+so(4,7) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#25: h=su(2)+su(2)+so(4,7) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#26: h=su(2)+su(2)+so(8,3) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#27: h=sl(2,R)+so(6,6) | real rank(h)=7 | ahyp rank=7  
 | L0-true | L1-true | L2-false | L3-false  
----  
#28: h=sl(2,R)+so(5,7) | real rank(h)=6 | ahyp rank=6  
 | L0-false | L1-false | L2-true | L3-false  
----  
#29: h=su(2)+so(5,7) | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
#30: h=su(2)+so(4,8) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#31: h=so(7,7) | real rank(h)=7 | ahyp rank=7  
 | L0-true | L1-true | L2-false | L3-false  
----  
#32: h=so(6,8) | real rank(h)=6 | ahyp rank=6  
 | L0-false | L1-false | L2-true | L3-false  
----  
#33: h=sl(2,R) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#34: h=sl(2,R)+so(2,3) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#35: h=su(2,2) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#36: h=so(6,7) + a torus of 1 non-compact dimensions | real rank(h)=7 | ahyp rank=6  
 | L0-true | L1-false | L2-false | L3-false  
----  
#37: h=so(6,7) + a torus of 1 compact dimensions | real rank(h)=6 | ahyp rank=6  
 | L0-false | L1-false | L2-true | L3-false  
----  
#38: h=so(8,5) + a torus of 1 compact dimensions | real rank(h)=5 | ahyp rank=5  
 | L0-false | L1-false | L2-true | L3-false  
----  
##################  
g=so(10,5) | real rank g=5 | a-hyp rank g=5  
----------------------------  
#1: h=so(6,1)+so(4,4) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#2: h=so(2,5)+so(3,5) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#3: h=so(4,3)+so\*(8) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#4: h=so(4,3)+so(1,7) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#5: h=so(7)+so(3,5) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#6: h=so(2,5)+so(8) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#7: h=sl(4,R)+so(2,7) | real rank(h)=5 | ahyp rank=4  
 | L0-true | L1-false | L2-false | L3-false  
----  
#8: h=su(2,2)+so(6,3) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#9: h=sl(2,H)+so(4,5) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#10: h=su(4)+so(4,5) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#11: h=su(2,2)+so(8,1) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#12: h=sl(2,H)+so(9) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#13: h=so(5)+so(5,5) | real rank(h)=5 | ahyp rank=4  
 | L0-true | L1-false | L2-false | L3-false  
----  
#14: h=so(4,1)+so(4,6) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#15: h=so(2,3)+so(3,7) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#16: h=so(2,3)+so(2,8) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#17: h=so(4,1)+so(9,1) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#18: h=so(5)+so(10) | real rank(h)=0 | ahyp rank=0  
 | L0-false | L1-false | L2-true | L3-false  
----  
#19: h=sl(2,R)+sl(2,R)+so(8,3) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#20: h=sl(2,C)+so(4,7) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#21: h=su(2)+su(2)+so(6,5) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#22: h=sl(2,C)+so(2,9) | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----  
#23: h=su(2)+su(2)+so(10,1) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#24: h=su(2)+so(5,7) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#25: h=sl(2,R)+so(4,8) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#26: h=sl(2,R)+so(3,9) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#27: h=su(2)+so(2,10) | real rank(h)=2 | ahyp rank=2  
 | L0-false | L1-false | L2-true | L3-false  
----  
#28: h=so(5,9) | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#29: h=so(4,10) | real rank(h)=4 | ahyp rank=4  
 | L0-false | L1-false | L2-true | L3-false  
----  
#30: h=sl(2,R)+so(5) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#31: h=sl(2,H) | real rank(h)=1 | ahyp rank=1  
 | L0-false | L1-false | L2-true | L3-false  
----  
#32: h=so(4,9) + a torus of 1 non-compact dimensions | real rank(h)=5 | ahyp rank=4  
 | L0-true | L1-false | L2-false | L3-false  
----  
#33: h=so(8,5) + a torus of 1 compact dimensions | real rank(h)=5 | ahyp rank=5  
 | L0-true | L1-true | L2-false | L3-false  
----  
#34: h=so(10,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank=3  
 | L0-false | L1-false | L2-true | L3-false  
----