# 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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=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(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so(5) | real rank(h)=0 | ahyp rank(h)=0
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(2) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=so(2,3) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=so(4,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=sl(2,R)+su(2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(2,R)+sl(2,R) | real rank(h)=2 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=0
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#2: h=so(4,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,R)+su(2) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=1
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=so(2,3) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=sl(2,R)+sl(2,R) | real rank(h)=2 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(5) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=so(4,1) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=so(2,3) | real rank(h)=2 | ahyp rank(h)=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(h)=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(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(5) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=so(2,3) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-true | L2-false | L3-false
----
#5: h=so(4,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
##################
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```
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(h)=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(h)=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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+su(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=su(4) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=sp(3) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(2,H) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=su(1,2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=su(2)+su(1,2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=su(2,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=sp(1,2) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=sl(2,R)+su(3) | real rank(h)=1 | ahyp rank(h)=1
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=sl(2,R)+su(1,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=su(1,3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=sl(4,R) | real rank(h)=3 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#13: h=sp(3,R) | real rank(h)=3 | ahyp rank(h)=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(h)=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(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+sl(3,R) | real rank(h)=2 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(1,3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-true | L2-false | L3-false
----
#5: h=sp(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sp(1,2) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#5: h=sl(3,R) | real rank(h)=2 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(2,R)+sl(3,R) | real rank(h)=3 | ahyp rank(h)=2
```

```
 | L0-false | L1-false | L2-false | L3-true
----
#7: h=su(4) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=su(2,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=sl(2,H) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=sl(4,R) | real rank(h)=3 | ahyp rank(h)=2
 | L0-false | L1-false | L2-false | L3-true
----
#11: h=sp(3,R) | real rank(h)=3 | ahyp rank(h)=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(h)=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(h)=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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=so(7) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=so(6,1) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=so(2,5) | real rank(h)=2 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=so(4,3) | real rank(h)=3 | ahyp rank(h)=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(h)=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(h)=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(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=so(7) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=so(2,5) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=so(4,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-true | L2-false | L3-false
----
#7: h=so(6,1) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+su(4) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=so(8) | real rank(h)=0 | ahyp rank(h)=0
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=sp(4) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=so(1,7) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=su(2)+su(1,3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=sp(1,3) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=so(3,5) | real rank(h)=3 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=su(2)+su(2,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=sl(2,R)+su(4) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=sl(2,R)+su(1,3) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=sl(2,R)+su(2,2) | real rank(h)=3 | ahyp rank(h)=3
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=so*(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(4,4) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#20: h=sp(2,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=sp(4,R) | real rank(h)=4 | ahyp rank(h)=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(h)=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(h)=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(h)=1
 | L0-true | L1-false | L2-false | L3-false
----
#4: h=su(2)+sl(4,R) | real rank(h)=3 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=sl(2,R)+sl(2,H) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-true | L2-false | L3-false
----
#6: h=so*(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-true | L2-false | L3-false
----
#7: h=sp(4) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=sp(1,3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=sp(2,2) | real rank(h)=2 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#7: h=su(2)+sl(2,H) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=sl(2,R)+sl(4,R) | real rank(h)=4 | ahyp rank(h)=3
 | L0-false | L1-false | L2-false | L3-true
----
#9: h=so(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=so(4,4) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-true | L2-false | L3-false
----
#11: h=so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=so(1,7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=sp(4,R) | real rank(h)=4 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(3)+su(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=so(9) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=so(8,1) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=so(2,7) | real rank(h)=2 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=2
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=su(1,2)+su(3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so(6,3) | real rank(h)=3 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=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(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=su(1,2)+su(1,2) | real rank(h)=2 | ahyp rank(h)=2
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=so(4,5) | real rank(h)=4 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=sl(3,R)+sl(3,R) | real rank(h)=4 | ahyp rank(h)=2
 | L0-false | L1-false | L2-false | L3-true
----
#6: h=so(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=so(2,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=so(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-true | L2-false | L3-false
----
#9: h=so(6,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=so(8,1) | real rank(h)=1 | ahyp rank(h)=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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,C) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2)+su(2) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(4) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=G2c | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=2
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,R)+sl(2,C) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,R)+su(2)+su(2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=su(2,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=sl(2,H) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,R)+sl(2,C) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=su(2)+sl(2,C) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=su(2)+su(2)+su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=sl(4,R) | real rank(h)=3 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#6: h=su(2,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=G2(2) | real rank(h)=2 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,R)+su(2)+su(2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,H) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(4) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2)+su(4) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+su(2) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2)+su(2)+so(2,3) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,C)+so(4,1) | real rank(h)=2 | ahyp rank(h)=2
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(2)+su(2,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=sl(2,R)+sl(2,H) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=sl(2,R)+su(4) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=so*(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=so(1,7) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,C)+so(2,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=sl(2,C)+so(4,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=su(2)+su(2)+so(4,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(2)+su(2)+so(5) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(2,R)+sl(4,R) | real rank(h)=4 | ahyp rank(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#7: h=sl(2,R)+su(2,2) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=su(2)+su(2,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=su(2)+sl(2,H) | real rank(h)=1 | ahyp rank(h)=1
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=so(4,4) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=sl(2,R)+sl(2,R) | real rank(h)=2 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,C)+so(2,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(2)+so(2,3) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=sl(2,C)+so(5) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(2)+sl(4,R) | real rank(h)=3 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#6: h=sl(2,R)+su(2,2) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=sl(2,R)+sl(2,H) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=su(2)+su(4) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=so*(8) | real rank(h)=2 | ahyp rank(h)=2
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=sl(2,R)+su(2) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2)+su(2)+so(4,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+sl(2,H) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=sl(2,R)+su(4) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=so(1,7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=so(8) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2)+su(2)+so(7) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+so(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=so(10) | real rank(h)=0 | ahyp rank(h)=0
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,H)+so(4,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(4)+so(2,3) | real rank(h)=2 | ahyp rank(h)=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(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=sl(2,C)+so(6,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=su(2)+su(2)+so(2,5) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=su(2)+so*(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,R)+so(1,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=sl(2,R)+so(8) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=so(2,8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=so(9,1) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=su(2,2)+so(2,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,H)+so(2,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=su(2,2)+so(5) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(4)+so(4,1) | real rank(h)=1 | ahyp rank(h)=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(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=sl(2,C)+so(4,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=su(2)+su(2)+so(4,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=sl(2,C)+so(6,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=su(2)+su(2)+so(7) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=su(2)+so(4,4) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=sl(2,R)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=sl(2,R)+so*(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=su(2)+so(1,7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so(4,6) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=so(3,7) | real rank(h)=3 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=su(2,2)+so(2,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=su(2,2)+so(4,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=sl(2,H)+so(4,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=sl(2,H)+so(5) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=su(4)+so(5) | real rank(h)=0 | ahyp rank(h)=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(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,C)+so(4,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=sl(2,C)+so(2,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=su(2)+su(2)+so(2,5) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=su(2)+su(2)+so(6,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=sl(2,R)+so(4,4) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=sl(2,R)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=su(2)+so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=su(2)+so*(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=so(5,5) | real rank(h)=5 | ahyp rank(h)=4
```

```
 | L0-true | L1-false | L2-false | L3-false
----
#17: h=so(4,6) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=su(2,2)+so(4,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,H)+so(2,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(4)+so(2,3) | real rank(h)=2 | ahyp rank(h)=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(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=sl(2,C)+so(2,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=su(2)+su(2)+so(4,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,C)+so(7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=su(2)+so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=sl(2,R)+so*(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=sl(2,R)+so(1,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=su(2)+so(8) | real rank(h)=0 | ahyp rank(h)=0
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=so(3,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(2,8) | real rank(h)=2 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(4)+so(4,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,C)+so(7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(2)+su(2)+so(6,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+so(1,7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=sl(2,R)+so(8) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=so(9,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=so(10) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=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(h)=0
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so(5)+so(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(2)+so(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(2)+so(10) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=so(12) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=su(2) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,H)+so(6,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(4)+so(2,5) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=so(5)+so*(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=so(4,1)+so(1,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=so(2,3)+so(8) | real rank(h)=2 | ahyp rank(h)=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(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,C)+so(8,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=su(2)+su(2)+so(2,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=su(2)+so(2,8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=sl(2,R)+so(9,1) | real rank(h)=2 | ahyp rank(h)=2
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=sl(2,R)+so(10) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=so(2,10) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(11,1) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=su(2,2)+so(2,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,H)+so(4,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(4)+so(4,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(2,2)+so(7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=so(5)+so(4,4) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=so(4,1)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=so(2,3)+so*(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=so(2,3)+so(1,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=so(4,1)+so(8) | real rank(h)=1 | ahyp rank(h)=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(h)=4
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=sl(2,C)+so(6,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=su(2)+su(2)+so(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=sl(2,C)+so(8,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=su(2)+su(2)+so(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=su(2)+so(4,6) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#17: h=sl(2,R)+so(3,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#18: h=sl(2,R)+so(2,8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=su(2)+so(9,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=so(4,8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#21: h=so(3,9) | real rank(h)=3 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=su(2,2)+so(4,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=su(2,2)+so(2,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=sl(2,H)+so(2,5) | real rank(h)=3 | ahyp rank(h)=3
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=sl(2,H)+so(6,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=su(4)+so(6,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=su(4)+so(7) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=so(2,3)+so(4,4) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=so(2,3)+so(3,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=so(4,1)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=so(4,1)+so*(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=so(5)+so*(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=so(5)+so(1,7) | real rank(h)=1 | ahyp rank(h)=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(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=sl(2,C)+so(4,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=sl(2,C)+so(6,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=su(2)+su(2)+so(6,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=su(2)+su(2)+so(2,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=sl(2,R)+so(5,5) | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#20: h=sl(2,R)+so(4,6) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=su(2)+so(4,6) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#22: h=su(2)+so(3,7) | real rank(h)=3 | ahyp rank(h)=3
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#23: h=so(6,6) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#24: h=so(5,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=su(2,2)+so(4,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,H)+so(4,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=su(2,2)+so(6,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(4)+so(2,5) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(2,H)+so(7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=so(4,1)+so(4,4) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=so(2,3)+so(3,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=so(2,3)+so*(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=so(5)+so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=so(4,1)+so(1,7) | real rank(h)=2 | ahyp rank(h)=2
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=so(5)+so(8) | real rank(h)=0 | ahyp rank(h)=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(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=sl(2,C)+so(4,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=su(2)+su(2)+so(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=sl(2,C)+so(2,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=su(2)+su(2)+so(8,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=su(2)+so(5,5) | real rank(h)=5 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#19: h=sl(2,R)+so(4,6) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#20: h=sl(2,R)+so(3,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=su(2)+so(2,8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#22: h=so(5,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=so(4,8) | real rank(h)=4 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=su(2,2)+so(6,1) | real rank(h)=3 | ahyp rank(h)=3
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,H)+so(2,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(4)+so(4,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=so(5)+so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=so(4,1)+so*(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=so(2,3)+so(1,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=so(2,3)+so(8) | real rank(h)=2 | ahyp rank(h)=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(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=sl(2,C)+so(2,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=su(2)+su(2)+so(6,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=sl(2,C)+so(9) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=su(2)+so(3,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=sl(2,R)+so(2,8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=sl(2,R)+so(9,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=su(2)+so(10) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=so(3,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#18: h=so(2,10) | real rank(h)=2 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(4)+so(6,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(5)+so(1,7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=so(4,1)+so(8) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=sl(2,C)+so(9) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=su(2)+su(2)+so(8,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=su(2)+so(9,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,R)+so(10) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=so(11,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=so(12) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(4)+so(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(5)+so(10) | real rank(h)=0 | ahyp rank(h)=0
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(2)+su(2)+so(11) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+so(12) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=so(14) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=su(2)+so(5) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=su(4) | real rank(h)=0 | ahyp rank(h)=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(h)=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(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so(6,1)+so(1,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(2,5)+so(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(2,2)+so(9) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=sl(2,H)+so(8,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=su(4)+so(2,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=so(5)+so(2,8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=so(4,1)+so(9,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=so(2,3)+so(10) | real rank(h)=2 | ahyp rank(h)=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(h)=2
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=sl(2,C)+so(10,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=su(2)+su(2)+so(2,9) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=su(2)+so(2,10) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=sl(2,R)+so(11,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=sl(2,R)+so(12) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=so(2,12) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#17: h=so(13,1) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so(6,1)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(2,5)+so*(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=so(4,3)+so(1,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=so(4,3)+so(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(4,R)+so(8,1) | real rank(h)=4 | ahyp rank(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#7: h=su(2,2)+so(2,7) | real rank(h)=4 | ahyp rank(h)=4
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,H)+so(6,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=su(4)+so(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=su(2,2)+so(9) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=so(5)+so(4,6) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=so(4,1)+so(3,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=so(2,3)+so(2,8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(2,3)+so(9,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so(4,1)+so(10) | real rank(h)=1 | ahyp rank(h)=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(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#17: h=sl(2,C)+so(8,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#18: h=su(2)+su(2)+so(4,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#19: h=sl(2,C)+so(10,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=su(2)+su(2)+so(11) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=su(2)+so(4,8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#22: h=sl(2,R)+so(3,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=sl(2,R)+so(2,10) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=su(2)+so(11,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=so(4,10) | real rank(h)=4 | ahyp rank(h)=4
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#26: h=so(3,11) | real rank(h)=3 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so(4,3)+so(3,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(4,3)+so*(8) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=so(6,1)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=so(2,5)+so(1,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=so(7)+so*(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=so(6,1)+so(8) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=sl(4,R)+so(6,3) | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#9: h=su(2,2)+so(4,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=sl(2,H)+so(4,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=su(2,2)+so(2,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=su(4)+so(6,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=sl(2,H)+so(8,1) | real rank(h)=2 | ahyp rank(h)=2
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=su(4)+so(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so(4,1)+so(5,5) | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#16: h=so(2,3)+so(4,6) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#17: h=so(2,3)+so(3,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=so(5)+so(4,6) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(4,1)+so(2,8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=so(5)+so(9,1) | real rank(h)=1 | ahyp rank(h)=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(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#22: h=sl(2,C)+so(6,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=su(2)+su(2)+so(6,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=sl(2,C)+so(8,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=su(2)+su(2)+so(2,9) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#26: h=su(2)+so(6,6) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#27: h=sl(2,R)+so(5,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#28: h=sl(2,R)+so(4,8) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#29: h=su(2)+so(3,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#30: h=so(6,8) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#31: h=so(5,9) | real rank(h)=5 | ahyp rank(h)=5
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#32: h=su(2)+so(2,3) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#33: h=sl(2,R)+so(4,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#34: h=su(1,3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#35: h=sl(4,R) | real rank(h)=3 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so(4,3)+so(3,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=so(2,5)+so(3,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=so(2,5)+so*(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=so(6,1)+so*(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=so(6,1)+so(1,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=so(7)+so(1,7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=so(7)+so(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=sl(4,R)+so(4,5) | real rank(h)=7 | ahyp rank(h)=6
 | L0-true | L1-false | L2-false | L3-false
----
#10: h=su(2,2)+so(4,5) | real rank(h)=6 | ahyp rank(h)=6
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=su(2,2)+so(6,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=sl(2,H)+so(6,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=sl(2,H)+so(2,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=su(4)+so(2,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=su(4)+so(8,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=so(2,3)+so(5,5) | real rank(h)=7 | ahyp rank(h)=6
 | L0-true | L1-false | L2-false | L3-false
----
#17: h=so(2,3)+so(4,6) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=so(4,1)+so(4,6) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(4,1)+so(3,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=so(5)+so(3,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=so(5)+so(2,8) | real rank(h)=2 | ahyp rank(h)=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(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=sl(2,C)+so(6,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=sl(2,C)+so(4,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=su(2)+su(2)+so(4,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#26: h=su(2)+su(2)+so(8,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=sl(2,R)+so(6,6) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#28: h=sl(2,R)+so(5,7) | real rank(h)=6 | ahyp rank(h)=6
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#29: h=su(2)+so(5,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#30: h=su(2)+so(4,8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#31: h=so(7,7) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#32: h=so(6,8) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#33: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#34: h=sl(2,R)+so(2,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#35: h=su(2,2) | real rank(h)=2 | ahyp rank(h)=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(h)=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(h)=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(h)=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(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so(2,5)+so(3,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(4,3)+so*(8) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=so(4,3)+so(1,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=so(7)+so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=so(2,5)+so(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=sl(4,R)+so(2,7) | real rank(h)=5 | ahyp rank(h)=4
```

```
 | L0-true | L1-false | L2-false | L3-false
----
#8: h=su(2,2)+so(6,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=sl(2,H)+so(4,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=su(4)+so(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=su(2,2)+so(8,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=sl(2,H)+so(9) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=so(5)+so(5,5) | real rank(h)=5 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#14: h=so(4,1)+so(4,6) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=so(2,3)+so(3,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=so(2,3)+so(2,8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=so(4,1)+so(9,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=so(5)+so(10) | real rank(h)=0 | ahyp rank(h)=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(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#20: h=sl(2,C)+so(4,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#21: h=su(2)+su(2)+so(6,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#22: h=sl(2,C)+so(2,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#23: h=su(2)+su(2)+so(10,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=su(2)+so(5,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#25: h=sl(2,R)+so(4,8) | real rank(h)=5 | ahyp rank(h)=5
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#26: h=sl(2,R)+so(3,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=su(2)+so(2,10) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#28: h=so(5,9) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#29: h=so(4,10) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#30: h=sl(2,R)+so(5) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#31: h=sl(2,H) | real rank(h)=1 | ahyp rank(h)=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(h)=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(h)=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(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
###################
g=so(12,3) | real rank(g)=3 | a-hyp rank(g)=3
---------------------------
#1: h=so(7)+so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so(6,1)+so*(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(2,5)+so(1,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=so(4,3)+so(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=sl(4,R)+so(9) | real rank(h)=3 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#6: h=su(2,2)+so(8,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=su(4)+so(6,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,H)+so(2,7) | real rank(h)=3 | ahyp rank(h)=3
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=so(5)+so(3,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=so(4,1)+so(2,8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=so(2,3)+so(9,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=so(2,3)+so(10) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=sl(2,R)+sl(2,R)+so(10,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=sl(2,C)+so(2,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=su(2)+su(2)+so(8,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=sl(2,C)+so(11) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=su(2)+so(3,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#18: h=sl(2,R)+so(2,10) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#19: h=sl(2,R)+so(11,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=su(2)+so(12) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=so(3,11) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#22: h=so(2,12) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#23: h=su(2)+so(4,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=so(2,11) + a torus of  1 non-compact dimensions | real rank(h)=3 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#25: h=so(10,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#26: h=so(12,1) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank(h)=1
```

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

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

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

```
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(2)+su(2)+so(13) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(4,R)+so(10,1) | real rank(h)=4 | ahyp rank(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#7: h=su(2,2)+so(2,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=su(4)+so(4,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=sl(2,H)+so(8,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=su(2,2)+so(11) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=so(9)+so(4,4) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=so(8,1)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=so(2,7)+so*(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(4,5)+so(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=so(6,3)+so(1,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=so(7)+so(4,6) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#17: h=so(6,1)+so(3,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#18: h=so(2,5)+so(2,8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#19: h=so(4,3)+so(9,1) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#20: h=so(4,3)+so(10) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=so(5)+so(4,8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#22: h=so(4,1)+so(3,9) | real rank(h)=4 | ahyp rank(h)=4
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=so(2,3)+so(2,10) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#24: h=so(2,3)+so(11,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=so(4,1)+so(12) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#26: h=su(2)+so(4,10) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#27: h=sl(2,R)+so(3,11) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#28: h=sl(2,R)+so(2,12) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#29: h=su(2)+so(13,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#30: h=so(4,12) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#31: h=so(3,13) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#32: h=so(12,3) + a torus of  1 non-compact dimensions | real rank(h)=4 | ahyp rank(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#33: h=so(4,11) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#34: h=so(2,13) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(6,11) | real rank(g)=6 | a-hyp rank(g)=6
---------------------------
#1: h=sl(2,R)+sl(2,R)+so(4,9) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,C)+so(8,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(2)+so(6,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=sl(2,C)+so(10,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(2)+su(2)+so(2,11) | real rank(h)=2 | ahyp rank(h)=2
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(4,R)+so(8,3) | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#7: h=su(2,2)+so(4,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,H)+so(6,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=su(4)+so(6,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=su(2,2)+so(2,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=sl(2,H)+so(10,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=su(4)+so(11) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=so(2,7)+so(4,4) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(6,3)+so(3,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=so(4,5)+so*(8) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=so(4,5)+so(1,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=so(8,1)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=so(6,3)+so(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(9)+so*(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=so(6,1)+so(5,5) | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#21: h=so(2,5)+so(4,6) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#22: h=so(4,3)+so(3,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=so(4,3)+so(2,8) | real rank(h)=5 | ahyp rank(h)=5
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=so(7)+so(4,6) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=so(2,5)+so(9,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#26: h=so(6,1)+so(10) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=so(5)+so(6,6) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#28: h=so(4,1)+so(5,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#29: h=so(2,3)+so(4,8) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#30: h=so(2,3)+so(3,9) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#31: h=so(4,1)+so(2,10) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#32: h=so(5)+so(11,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#33: h=su(2)+so(6,8) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#34: h=sl(2,R)+so(5,9) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#35: h=sl(2,R)+so(4,10) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#36: h=su(2)+so(3,11) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#37: h=so(6,10) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#38: h=so(5,11) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#39: h=so(10,5) + a torus of  1 non-compact dimensions | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#40: h=so(6,9) + a torus of 1 compact dimensions | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#41: h=so(4,11) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank(h)=4
```

```
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(8,9) | real rank(g)=8 | a-hyp rank(g)=8
----------------------------
#1: h=sl(2,R)+sl(2,R)+so(6,7) | real rank(h)=8 | ahyp rank(h)=8
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,C)+so(6,7) | real rank(h)=7 | ahyp rank(h)=7
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=sl(2,C)+so(8,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=su(2)+su(2)+so(8,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(2)+su(2)+so(4,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(4,R)+so(6,5) | real rank(h)=8 | ahyp rank(h)=7
 | L0-true | L1-false | L2-false | L3-false
----
#7: h=su(2,2)+so(6,5) | real rank(h)=7 | ahyp rank(h)=7
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=su(2,2)+so(4,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=sl(2,H)+so(4,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=sl(2,H)+so(8,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=su(4)+so(8,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=su(4)+so(2,9) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=so(4,5)+so(4,4) | real rank(h)=8 | ahyp rank(h)=8
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(4,5)+so(3,5) | real rank(h)=7 | ahyp rank(h)=7
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so(6,3)+so(3,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=so(6,3)+so*(8) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=so(2,7)+so*(8) | real rank(h)=4 | ahyp rank(h)=4
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=so(2,7)+so(1,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(8,1)+so(1,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=so(8,1)+so(8) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=so(9)+so(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#22: h=so(4,3)+so(5,5) | real rank(h)=8 | ahyp rank(h)=7
 | L0-true | L1-false | L2-false | L3-false
----
#23: h=so(4,3)+so(4,6) | real rank(h)=7 | ahyp rank(h)=7
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=so(2,5)+so(4,6) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=so(2,5)+so(3,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#26: h=so(6,1)+so(3,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=so(6,1)+so(2,8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#28: h=so(7)+so(2,8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#29: h=so(7)+so(9,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#30: h=so(2,3)+so(6,6) | real rank(h)=8 | ahyp rank(h)=8
 | L0-true | L1-true | L2-false | L3-false
----
#31: h=so(2,3)+so(5,7) | real rank(h)=7 | ahyp rank(h)=7
 | L0-false | L1-false | L2-true | L3-false
----
#32: h=so(4,1)+so(5,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#33: h=so(4,1)+so(4,8) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#34: h=so(5)+so(4,8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#35: h=so(5)+so(3,9) | real rank(h)=3 | ahyp rank(h)=3
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#36: h=sl(2,R)+so(7,7) | real rank(h)=8 | ahyp rank(h)=8
 | L0-true | L1-true | L2-false | L3-false
----
#37: h=sl(2,R)+so(6,8) | real rank(h)=7 | ahyp rank(h)=7
 | L0-false | L1-false | L2-true | L3-false
----
#38: h=su(2)+so(6,8) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#39: h=su(2)+so(5,9) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#40: h=so(8,8) | real rank(h)=8 | ahyp rank(h)=8
 | L0-true | L1-true | L2-false | L3-false
----
#41: h=so(7,9) | real rank(h)=7 | ahyp rank(h)=7
 | L0-false | L1-false | L2-true | L3-false
----
#42: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#43: h=so(8,7) + a torus of  1 non-compact dimensions | real rank(h)=8 | ahyp rank(h)=7
 | L0-true | L1-false | L2-false | L3-false
----
#44: h=so(8,7) + a torus of 1 compact dimensions | real rank(h)=7 | ahyp rank(h)=7
 | L0-false | L1-false | L2-true | L3-false
----
#45: h=so(6,9) + a torus of 1 compact dimensions | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(10,7) | real rank(g)=7 | a-hyp rank(g)=7
----------------------------
#1: h=sl(2,R)+sl(2,R)+so(8,5) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,C)+so(6,7) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(2)+so(6,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=sl(2,C)+so(4,9) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(2)+su(2)+so(10,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(4,R)+so(4,7) | real rank(h)=7 | ahyp rank(h)=6
 | L0-true | L1-false | L2-false | L3-false
----
#7: h=su(2,2)+so(6,5) | real rank(h)=7 | ahyp rank(h)=7
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,H)+so(6,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=su(2,2)+so(8,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=su(4)+so(4,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=sl(2,H)+so(2,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=su(4)+so(10,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=so(6,3)+so(4,4) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(4,5)+so(3,5) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=so(4,5)+so*(8) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=so(2,7)+so(3,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=so(6,3)+so(1,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=so(8,1)+so*(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(2,7)+so(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=so(9)+so(1,7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=so(2,5)+so(5,5) | real rank(h)=7 | ahyp rank(h)=6
 | L0-true | L1-false | L2-false | L3-false
----
#22: h=so(4,3)+so(4,6) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=so(4,3)+so(3,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=so(6,1)+so(4,6) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=so(2,5)+so(2,8) | real rank(h)=4 | ahyp rank(h)=4
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#26: h=so(7)+so(3,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=so(6,1)+so(9,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#28: h=so(7)+so(10) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#29: h=so(4,1)+so(6,6) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#30: h=so(2,3)+so(5,7) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#31: h=so(2,3)+so(4,8) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#32: h=so(5)+so(5,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#33: h=so(4,1)+so(3,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#34: h=so(5)+so(2,10) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#35: h=su(2)+so(7,7) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#36: h=sl(2,R)+so(6,8) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#37: h=sl(2,R)+so(5,9) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#38: h=su(2)+so(4,10) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#39: h=so(7,9) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#40: h=so(6,10) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#41: h=so(6,9) + a torus of  1 non-compact dimensions | real rank(h)=7 | ahyp rank(h)=6
 | L0-true | L1-false | L2-false | L3-false
----
#42: h=so(8,7) + a torus of 1 compact dimensions | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#43: h=so(10,5) + a torus of 1 compact dimensions | real rank(h)=5 | ahyp rank(h)=5
```

```
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(12,5) | real rank(g)=5 | a-hyp rank(g)=5
----------------------------
#1: h=sl(2,R)+sl(2,R)+so(10,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,C)+so(4,9) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(2)+so(8,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=sl(2,C)+so(2,11) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(2)+su(2)+so(12,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(4,R)+so(2,9) | real rank(h)=5 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#7: h=su(2,2)+so(8,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,H)+so(4,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=su(4)+so(6,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=su(2,2)+so(10,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=sl(2,H)+so(11) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=so(8,1)+so(4,4) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=so(2,7)+so(3,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(6,3)+so*(8) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=so(4,5)+so(1,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=so(4,5)+so(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=so(9)+so(3,5) | real rank(h)=3 | ahyp rank(h)=3
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=so(7)+so(5,5) | real rank(h)=5 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#19: h=so(6,1)+so(4,6) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#20: h=so(2,5)+so(3,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#21: h=so(4,3)+so(2,8) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#22: h=so(4,3)+so(9,1) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#23: h=so(2,5)+so(10) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=so(5)+so(5,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#25: h=so(4,1)+so(4,8) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#26: h=so(2,3)+so(3,9) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#27: h=so(2,3)+so(2,10) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#28: h=so(4,1)+so(11,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#29: h=so(5)+so(12) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#30: h=su(2)+so(5,9) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#31: h=sl(2,R)+so(4,10) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#32: h=sl(2,R)+so(3,11) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#33: h=su(2)+so(2,12) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#34: h=so(5,11) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#35: h=so(4,12) | real rank(h)=4 | ahyp rank(h)=4
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#36: h=so(4,11) + a torus of  1 non-compact dimensions | real rank(h)=5 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#37: h=so(10,5) + a torus of 1 compact dimensions | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#38: h=so(12,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(14,3) | real rank(g)=3 | a-hyp rank(g)=3
----------------------------
#1: h=sl(2,R)+sl(2,R)+so(12,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,C)+so(2,11) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(2)+so(10,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=sl(2,C)+so(13) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=sl(4,R)+so(11) | real rank(h)=3 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#6: h=su(2,2)+so(10,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=sl(2,H)+so(2,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=su(4)+so(8,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=so(9)+so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=so(8,1)+so*(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=so(2,7)+so(1,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=so(6,3)+so(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=so(7)+so(3,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(6,1)+so(2,8) | real rank(h)=3 | ahyp rank(h)=3
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=so(2,5)+so(9,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=so(4,3)+so(10) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#17: h=so(5)+so(3,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#18: h=so(4,1)+so(2,10) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#19: h=so(2,3)+so(11,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#20: h=so(2,3)+so(12) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=su(2)+so(3,11) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#22: h=sl(2,R)+so(2,12) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=sl(2,R)+so(13,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=su(2)+so(14) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=so(3,13) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#26: h=so(2,14) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=so(2,13) + a torus of  1 non-compact dimensions | real rank(h)=3 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#28: h=so(12,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#29: h=so(14,1) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(16,1) | real rank(g)=1 | a-hyp rank(g)=1
---------------------------
#1: h=sl(2,C)+so(13) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2)+su(2)+so(12,1) | real rank(h)=1 | ahyp rank(h)=1
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,H)+so(11) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(4)+so(10,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=so(9)+so(1,7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=so(8,1)+so(8) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=so(7)+so(9,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=so(6,1)+so(10) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=so(5)+so(11,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=so(4,1)+so(12) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=su(2)+so(13,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=sl(2,R)+so(14) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=so(15,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(16) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so(15) + a torus of  1 non-compact dimensions | real rank(h)=1 | ahyp rank(h)=0
 | L0-true | L1-false | L2-false | L3-false
----
#16: h=so(14,1) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
##################
```

### Type C

```
g=sp(3) | 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(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2)+so(5) | real rank(h)=0 | ahyp rank(h)=0
```

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

```
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=su(2)+so*(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=sl(2,R)+so(8) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=sl(2,R)+so(4,4) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=sl(2,R)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=sl(2,R)+so(1,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
##################
```

### Type D

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

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

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

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

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

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

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

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

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

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

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

```
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=so(5)+so(4,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so(2,3)+so(2,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=so(2,3)+so(6,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=so(4,1)+so(7) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=so(4,1)+so(4,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#19: h=su(2)+so(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#20: h=su(2)+so(8,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=sl(2,R)+so(2,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#22: h=sl(2,R)+so(6,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=so(4,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#24: h=so(8,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=so(3,7) + a torus of  1 non-compact dimensions | real rank(h)=4 | ahyp rank(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#26: h=so(4,6) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#27: h=so(2,8) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(6,6) | real rank(g)=6 | a-hyp rank(g)=6
----------------------------
#1: h=sl(6,R) + a torus of  1 non-compact dimensions | real rank(h)=6 | ahyp rank(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=su(3,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=su(3,3) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
```

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

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

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

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

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

```
 | L0-true | L1-false | L2-false | L3-false
----
#23: h=so(3,7) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(14) | real rank(g)=0 | a-hyp rank(g)=0
----------------------------
#1: h=su(7) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(4)+so(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(2)+so(10) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=so(5) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=G2c | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=sp(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=so(7)+so(7) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=so(5)+so(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=su(2)+so(11) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=so(13) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=so(12) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
##################
g=so(2,12) | real rank(g)=2 | a-hyp rank(g)=2
----------------------------
#1: h=su(1,6) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#2: h=su(1,6) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=su(2,2)+so(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=sl(2,H)+so(1,7) | real rank(h)=2 | ahyp rank(h)=2
```

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

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

```
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(4,1)+so(9) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=so(4,1)+so(6,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#21: h=su(2)+so(4,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#22: h=su(2)+so(10,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#23: h=sl(2,R)+so(2,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=sl(2,R)+so(8,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#25: h=so(4,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#26: h=so(10,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=so(3,9) + a torus of  1 non-compact dimensions | real rank(h)=4 | ahyp rank(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#28: h=so(4,8) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#29: h=so(2,10) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(6,8) | real rank(g)=6 | a-hyp rank(g)=6
----------------------------
#1: h=su(3,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#2: h=su(3,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=sl(4,R)+so(3,5) | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#4: h=su(2,2)+so(4,4) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2,2)+so*(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(2,H)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=sl(2,H)+so(1,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=su(4)+so*(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=su(4)+so(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=sl(2,R)+sl(2,R)+so(4,6) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=sl(2,C)+so(5,5) | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#12: h=sl(2,C)+so(3,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=su(2)+su(2)+so(4,6) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=su(2)+su(2)+so(2,8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so(2,3) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=G2(2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=sp(1,2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=sp(3,R) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(7)+so(6,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=so(4,3)+so(2,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=so(6,1)+so(2,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#22: h=so(4,3)+so(4,3) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=so(5)+so(6,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=so(5)+so(8,1) | real rank(h)=1 | ahyp rank(h)=1
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=so(2,3)+so(4,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#26: h=so(2,3)+so(6,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=so(4,1)+so(2,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#28: h=su(2)+so(6,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#29: h=su(2)+so(8,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#30: h=sl(2,R)+so(4,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#31: h=sl(2,R)+so(6,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#32: h=so(6,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#33: h=so(8,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#34: h=so(5,7) + a torus of  1 non-compact dimensions | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#35: h=so(6,6) + a torus of 1 compact dimensions | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#36: h=so(4,8) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so*(14) | real rank(g)=3 | a-hyp rank(g)=3
----------------------------
#1: h=su(3,4) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2,5) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=su(1,6) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=su(7) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(1,3)+so*(8) | real rank(h)=3 | ahyp rank(h)=3
```

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

```
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=su(2,2)+so(1,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(4)+so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=sl(2,H)+so*(8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=sl(2,R)+sl(2,R)+so(9,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=sl(2,C)+so(2,8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=su(2)+su(2)+so(3,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,C)+so(10) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=so(4,3)+so(7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=so(2,5)+so(6,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=so(5)+so(6,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=so(2,3)+so(9) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=so(2,3)+so(8,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(4,1)+so(2,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=su(2)+so(11) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=su(2)+so(8,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#17: h=sl(2,R)+so(2,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#18: h=sl(2,R)+so(10,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(2,11) | real rank(h)=2 | ahyp rank(h)=2
```

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

```
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(5)+so(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so(5)+so(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=so(2,3)+so(2,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=so(2,3)+so(6,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#18: h=so(4,1)+so(8,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=su(2)+so(2,9) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=su(2)+so(6,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#21: h=sl(2,R)+so(4,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#22: h=sl(2,R)+so(8,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#23: h=so(4,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=so(8,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#25: h=so(4,8) + a torus of  1 non-compact dimensions | real rank(h)=5 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#26: h=so(5,7) + a torus of 1 compact dimensions | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#27: h=so(3,9) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(7,7) | real rank(g)=7 | a-hyp rank(g)=7
----------------------------
#1: h=sl(7,R) + a torus of  1 non-compact dimensions | real rank(h)=7 | ahyp rank(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=sl(4,R)+so(4,4) | real rank(h)=7 | ahyp rank(h)=6
 | L0-true | L1-false | L2-false | L3-false
----
#3: h=su(2,2)+so(3,5) | real rank(h)=5 | ahyp rank(h)=5
```

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

```
 | L0-false | L1-false | L2-true | L3-false
----
#22: h=sl(2,R)+so(6,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#23: h=so(6,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=so(6,6) + a torus of  1 non-compact dimensions | real rank(h)=7 | ahyp rank(h)=6
 | L0-true | L1-false | L2-false | L3-false
----
#25: h=so(5,7) + a torus of 1 compact dimensions | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#26: h=so(5,7) + a torus of 1 compact dimensions | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(16) | real rank(g)=0 | a-hyp rank(g)=0
----------------------------
#1: h=su(8) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(8) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(2)+so(12) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(4)+so(10) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=so(8)+so(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=so(5)+so(5) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=so(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=su(2)+sp(4) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=so(7)+so(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=so(5)+so(11) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=su(2)+so(13) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=so(15) | real rank(h)=0 | ahyp rank(h)=0
```

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

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

```
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=sl(4,R)+so(9,1) | real rank(h)=4 | ahyp rank(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#11: h=su(2,2)+so(2,8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=su(4)+so(4,6) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=sl(2,H)+so(3,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=su(2,2)+so(10) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so(4,4)+so(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=so(1,7)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#17: h=so*(8)+so*(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#18: h=su(2)+sp(1,3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(7)+so(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#20: h=so(2,5)+so(2,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#21: h=so(4,3)+so(9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#22: h=so(4,3)+so(8,1) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=so(6,1)+so(6,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#24: h=so(5)+so(4,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#25: h=so(2,3)+so(2,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#26: h=so(2,3)+so(10,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=so(4,1)+so(11) | real rank(h)=1 | ahyp rank(h)=1
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#28: h=so(4,1)+so(8,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#29: h=su(2)+so(4,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#30: h=su(2)+so(12,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#31: h=sl(2,R)+so(2,11) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#32: h=sl(2,R)+so(10,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#33: h=so(4,11) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#34: h=so(12,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#35: h=so(3,11) + a torus of  1 non-compact dimensions | real rank(h)=4 | ahyp rank(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#36: h=so(4,10) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#37: h=so(2,12) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(6,10) | real rank(g)=6 | a-hyp rank(g)=6
----------------------------
#1: h=su(3,5) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#2: h=su(3,5) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=sl(2,R)+sl(2,R)+so(4,8) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=sl(2,C)+so(5,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+su(2)+so(6,6) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=sl(2,C)+so(3,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=su(2)+su(2)+so(2,10) | real rank(h)=2 | ahyp rank(h)=2
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=sl(4,R)+so(3,7) | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#9: h=su(2,2)+so(4,6) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=sl(2,H)+so(5,5) | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#11: h=su(2,2)+so(2,8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=su(4)+so(4,6) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=sl(2,H)+so(9,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=su(4)+so(10) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so*(8)+so(4,4) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=so(3,5)+so(3,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#17: h=so(1,7)+so(3,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=so*(8)+so(8) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(7)+so(6,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=so(2,5)+so(4,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#21: h=so(2,5)+so(8,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#22: h=so(4,3)+so(2,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#23: h=so(4,3)+so(6,3) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#24: h=so(6,1)+so(9) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=so(6,1)+so(4,5) | real rank(h)=5 | ahyp rank(h)=5
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#26: h=so(5)+so(6,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=so(5)+so(10,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#28: h=so(2,3)+so(4,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#29: h=so(2,3)+so(8,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#30: h=so(4,1)+so(2,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#31: h=so(4,1)+so(6,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#32: h=su(2)+so(6,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#33: h=su(2)+so(10,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#34: h=sl(2,R)+so(4,9) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#35: h=sl(2,R)+so(8,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#36: h=so(6,9) | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#37: h=so(10,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#38: h=so(5,9) + a torus of  1 non-compact dimensions | real rank(h)=6 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#39: h=so(6,8) + a torus of 1 compact dimensions | real rank(h)=6 | ahyp rank(h)=6
 | L0-true | L1-true | L2-false | L3-false
----
#40: h=so(4,10) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(8,8) | real rank(g)=8 | a-hyp rank(g)=8
---------------------------
#1: h=sl(8,R) + a torus of  1 non-compact dimensions | real rank(h)=8 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=sl(8,R) + a torus of  1 non-compact dimensions | real rank(h)=8 | ahyp rank(h)=4
```

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

```
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=so(8,C) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#22: h=so*(8)+so*(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#23: h=so(8,C) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=so(1,7)+so(1,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=so(8)+so(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#26: h=so(5)+so(4,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=so(2,3)+so(2,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#28: h=so(4,1)+so(4,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#29: h=so(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#30: h=so(8,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#31: h=su(2)+sp(2,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#32: h=sl(2,R)+sp(4,R) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#33: h=so(7)+so(8,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#34: h=so(2,5)+so(6,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#35: h=so(4,3)+so(4,5) | real rank(h)=7 | ahyp rank(h)=7
 | L0-false | L1-false | L2-true | L3-false
----
#36: h=so(6,1)+so(2,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#37: h=so(5)+so(8,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#38: h=so(2,3)+so(6,5) | real rank(h)=7 | ahyp rank(h)=7
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#39: h=so(4,1)+so(4,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#40: h=su(2)+so(8,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#41: h=sl(2,R)+so(6,7) | real rank(h)=7 | ahyp rank(h)=7
 | L0-false | L1-false | L2-true | L3-false
----
#42: h=so(8,7) | real rank(h)=7 | ahyp rank(h)=7
 | L0-false | L1-false | L2-true | L3-false
----
#43: h=so(7,7) + a torus of  1 non-compact dimensions | real rank(h)=8 | ahyp rank(h)=7
 | L0-true | L1-false | L2-false | L3-false
----
#44: h=so(6,8) + a torus of 1 compact dimensions | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#45: h=so(6,8) + a torus of 1 compact dimensions | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so*(16) | real rank(g)=4 | a-hyp rank(g)=4
---------------------------
#1: h=su(3,5) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#2: h=su(2,6) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=su(1,7) + a torus of 1 compact dimensions | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=sl(4,H) + a torus of  1 non-compact dimensions | real rank(h)=4 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#5: h=su(4,4) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=su(8) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=sl(2,R)+su(2)+so*(12) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=su(1,3)+so*(10) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=so*(8)+so*(8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=so(8,C) | real rank(h)=4 | ahyp rank(h)=4
```

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

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

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

```
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(5,11) | real rank(g)=5 | a-hyp rank(g)=5
----------------------------
#1: h=sl(2,R)+sl(2,R)+so(3,9) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,C)+so(4,8) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(2)+so(5,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=sl(2,C)+so(2,10) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(2)+su(2)+so(11,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(4,R)+so(2,8) | real rank(h)=5 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#7: h=su(2,2)+so(3,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,H)+so(4,6) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=su(4)+so(5,5) | real rank(h)=5 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#10: h=su(2,2)+so(9,1) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=sl(2,H)+so(10) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=so(4,4)+so(1,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=so*(8)+so(3,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so(8)+so(3,5) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so(7)+so(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=so(2,5)+so(9) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=so(2,5)+so(6,3) | real rank(h)=5 | ahyp rank(h)=5
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#18: h=so(4,3)+so(2,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#19: h=so(4,3)+so(8,1) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=so(6,1)+so(4,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#21: h=so(5)+so(11) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#22: h=so(5)+so(6,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#23: h=so(2,3)+so(2,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=so(2,3)+so(8,3) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#25: h=so(4,1)+so(4,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#26: h=so(4,1)+so(10,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=su(2)+so(2,11) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#28: h=su(2)+so(8,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#29: h=sl(2,R)+so(4,9) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#30: h=sl(2,R)+so(10,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#31: h=so(4,11) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#32: h=so(10,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#33: h=so(4,10) + a torus of  1 non-compact dimensions | real rank(h)=5 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#34: h=so(5,9) + a torus of 1 compact dimensions | real rank(h)=5 | ahyp rank(h)=5
 | L0-true | L1-true | L2-false | L3-false
----
#35: h=so(3,11) + a torus of 1 compact dimensions | real rank(h)=3 | ahyp rank(h)=3
```

```
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=so(7,9) | real rank(g)=7 | a-hyp rank(g)=7
---------------------------
#1: h=sl(2,R)+sl(2,R)+so(5,7) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(2,C)+so(6,6) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=sl(2,C)+so(4,8) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=su(2)+su(2)+so(5,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(2)+su(2)+so(3,9) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(4,R)+so(4,6) | real rank(h)=7 | ahyp rank(h)=6
 | L0-true | L1-false | L2-false | L3-false
----
#7: h=su(2,2)+so(5,5) | real rank(h)=7 | ahyp rank(h)=6
 | L0-true | L1-false | L2-false | L3-false
----
#8: h=su(2,2)+so(3,7) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=sl(2,H)+so(4,6) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=sl(2,H)+so(2,8) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=su(4)+so(3,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=su(4)+so(9,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=so(4,4)+so(3,5) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#14: h=so*(8)+so(3,5) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=so*(8)+so(1,7) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=so(1,7)+so(8) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=so(7)+so(9) | real rank(h)=0 | ahyp rank(h)=0
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=so(7)+so(2,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=so(2,5)+so(2,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=so(2,5)+so(4,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=so(4,3)+so(4,5) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#22: h=so(4,3)+so(6,3) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#23: h=so(6,1)+so(6,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=so(6,1)+so(8,1) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=so(5)+so(2,9) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#26: h=so(5)+so(4,7) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#27: h=so(2,3)+so(4,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#28: h=so(2,3)+so(6,5) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#29: h=so(4,1)+so(6,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#30: h=so(4,1)+so(8,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#31: h=su(2)+so(4,9) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#32: h=su(2)+so(6,7) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#33: h=sl(2,R)+so(6,7) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#34: h=sl(2,R)+so(8,5) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#35: h=so(6,9) | real rank(h)=6 | ahyp rank(h)=6
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#36: h=so(8,7) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#37: h=so(6,8) + a torus of  1 non-compact dimensions | real rank(h)=7 | ahyp rank(h)=6
 | L0-true | L1-false | L2-false | L3-false
----
#38: h=so(7,7) + a torus of 1 compact dimensions | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#39: h=so(5,9) + a torus of 1 compact dimensions | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
##################
```

## Type E

```
g=E6c | real rank(g)=0 | a-hyp rank(g)=0
----------------------------
#1: h=so(10) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(3)+su(3)+su(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+su(6) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=G2c | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=su(3)+G2c | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=sp(4) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=F4c | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
##################
g=E6(6) | real rank(g)=6 | a-hyp rank(g)=4
----------------------------
#1: h=so(5,5) + a torus of  1 non-compact dimensions | real rank(h)=6 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=sl(3,R)+sl(3,R)+sl(3,R) | real rank(h)=6 | ahyp rank(h)=3
 | L0-true | L1-false | L2-false | L3-false
----
#3: h=su(1,2)+sl(3,C) | real rank(h)=3 | ahyp rank(h)=2
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=sl(2,R)+sl(6,R) | real rank(h)=6 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+sl(3,H) | real rank(h)=2 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(3,R)+G2(2) | real rank(h)=4 | ahyp rank(h)=3
 | L0-false | L1-false | L2-false | L3-true
----
#7: h=sp(4) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=sp(2,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=sp(4,R) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-true | L2-false | L3-false
----
#10: h=F4(4) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-true | L2-false | L3-false
----
##################
g=E6(2) | real rank(g)=4 | a-hyp rank(g)=4
----------------------------
#1: h=so(4,6) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so*(10) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=sl(3,R)+sl(3,C) | real rank(h)=4 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#4: h=su(1,2)+su(1,2)+su(1,2) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(1,2)+su(3)+su(3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=sl(2,R)+su(3,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=su(2)+su(2,4) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=su(2)+su(6) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=su(1,2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=sl(3,R) | real rank(h)=2 | ahyp rank(h)=1
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=G2(2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=su(3)+G2(2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=su(1,2)+G2(2) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=sp(1,3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=sp(4,R) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=F4(4) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
##################
g=E6(-14) | real rank(g)=2 | a-hyp rank(g)=2
----------------------------
#1: h=so*(10) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so(2,8) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(10) + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=su(1,2)+su(1,2)+su(3) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=sl(2,R)+su(1,5) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=su(2)+su(2,4) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=su(1,2)+G2c | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=sp(2,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=F4(-20) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=E6(-26) | real rank(g)=2 | a-hyp rank(g)=1
----------------------------
#1: h=so(9,1) + a torus of  1 non-compact dimensions | real rank(h)=2 | ahyp rank(h)=1
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(3)+sl(3,C) | real rank(h)=2 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2)+sl(3,H) | real rank(h)=2 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=sl(3,R)+G2c | real rank(h)=2 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=sp(1,3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-true | L2-false | L3-false
----
#6: h=F4c | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=F4(-20) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-true | L2-false | L3-false
----
##################
g=E7c | real rank(g)=0 | a-hyp rank(g)=0
---------------------------
#1: h=E6c + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2)+so(12) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(3)+su(6) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=su(2)+su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=su(2)+G2c | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sp(3)+G2c | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=su(2)+F4c | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=su(2) | real rank(h)=0 | ahyp rank(h)=0
```

```
 | L0-true | L1-true | L2-false | L3-false
----
##################
g=E7(7) | real rank(g)=7 | a-hyp rank(g)=7
----------------------------
#1: h=E6(6) + a torus of  1 non-compact dimensions | real rank(h)=7 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=E6(2) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=sl(2,R)+so(6,6) | real rank(h)=7 | ahyp rank(h)=7
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(2)+so*(12) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=sl(8,R) | real rank(h)=7 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#6: h=su(4,4) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=sl(4,H) | real rank(h)=3 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=su(8) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=sl(3,R)+sl(6,R) | real rank(h)=7 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#10: h=su(1,2)+su(3,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=su(3)+su(1,5) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=sl(3,R) | real rank(h)=2 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=sl(2,R)+sl(2,R) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=sl(2,R)+G2c | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=sl(2,R)+G2(2) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=sp(3,R)+G2(2) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=sl(2,R)+F4(4) | real rank(h)=5 | ahyp rank(h)=5
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=E7(-25) | real rank(g)=3 | a-hyp rank(g)=3
----------------------------
#1: h=E6(-26) + a torus of  1 non-compact dimensions | real rank(h)=3 | ahyp rank(h)=1
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=E6(-14) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=E6c + a torus of 1 compact dimensions | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=sl(2,R)+so(2,10) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+so*(12) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=sl(4,H) | real rank(h)=3 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#7: h=su(2,6) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=su(3)+su(3,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=su(1,2)+su(1,5) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=sp(3,R)+G2c | real rank(h)=3 | ahyp rank(h)=3
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=sl(2,R)+F4c | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=sl(2,R)+F4(-20) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
##################
```

```
g=E7(-5) | real rank(g)=4 | a-hyp rank(g)=4
----------------------------
#1: h=E6(2) + a torus of 1 compact dimensions | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=E6(-14) + a torus of 1 compact dimensions | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=sl(2,R)+so*(12) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(2)+so(4,8) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+so(12) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=su(4,4) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=su(2,6) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#8: h=sl(3,R)+sl(3,H) | real rank(h)=4 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#9: h=su(1,2)+su(2,4) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=su(3)+su(2,4) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=su(1,2)+su(6) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#12: h=su(1,2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=sl(2,R)+su(2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=su(2)+G2(2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=sp(3)+G2(2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=sp(1,2)+G2c | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=sp(1,2)+G2(2) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=su(2)+F4(4) | real rank(h)=4 | ahyp rank(h)=4
```

```
 | L0-true | L1-true | L2-false | L3-false
----
#19: h=su(2)+F4(-20) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=E8c | real rank(g)=0 | a-hyp rank(g)=0
----------------------------
#1: h=so(16) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(5)+su(5) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(3)+E6c | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+E7c | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#6: h=so(5) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#7: h=su(2)+su(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=F4c+G2c | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#10: h=su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#11: h=su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
##################
g=E8(8) | real rank(g)=8 | a-hyp rank(g)=8
----------------------------
#1: h=so(8,8) | real rank(h)=8 | ahyp rank(h)=8
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so*(16) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=so(16) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=sl(9,R) | real rank(h)=8 | ahyp rank(h)=4
```

```
 | L0-true | L1-false | L2-false | L3-false
----
#5: h=su(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=su(1,8) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=sl(5,R)+sl(5,R) | real rank(h)=8 | ahyp rank(h)=4
 | L0-true | L1-false | L2-false | L3-false
----
#8: h=su(2,3)+su(2,3) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=su(1,4)+su(1,4) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=su(1,4)+su(5) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=sl(3,R)+E6(6) | real rank(h)=8 | ahyp rank(h)=5
 | L0-true | L1-false | L2-false | L3-false
----
#12: h=su(1,2)+E6(2) | real rank(h)=5 | ahyp rank(h)=5
 | L0-false | L1-false | L2-true | L3-false
----
#13: h=su(3)+E6(-14) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=sl(2,R)+E7(7) | real rank(h)=8 | ahyp rank(h)=8
 | L0-true | L1-true | L2-false | L3-false
----
#15: h=su(2)+E7(-5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-false | L1-false | L2-true | L3-false
----
#16: h=so(2,3) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=so(4,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#18: h=su(2)+su(1,2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#19: h=sl(2,R)+su(3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#20: h=sl(2,R)+su(1,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#21: h=sl(2,R)+sl(3,R) | real rank(h)=3 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#22: h=F4(-20)+G2c | real rank(h)=1 | ahyp rank(h)=1
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#23: h=F4(4)+G2(2) | real rank(h)=6 | ahyp rank(h)=6
 | L0-false | L1-false | L2-true | L3-false
----
#24: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#25: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#26: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=E8(-24) | real rank(g)=4 | a-hyp rank(g)=4
----------------------------
#1: h=so(4,12) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=so*(16) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(3,6) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=su(2,7) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=su(1,4)+su(2,3) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=su(2,3)+su(5) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=sl(3,R)+E6(-26) | real rank(h)=4 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#8: h=su(3)+E6(2) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#9: h=su(1,2)+E6(-14) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=su(1,2)+E6c | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#11: h=sl(2,R)+E7(-25) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#12: h=su(2)+E7(-5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#13: h=su(2)+E7c | real rank(h)=0 | ahyp rank(h)=0
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#14: h=su(2)+sl(3,R) | real rank(h)=2 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#15: h=F4(4)+G2c | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#16: h=F4c+G2(2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#17: h=F4(-20)+G2(2) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
##################
```

### Type F

```
g=F4c | real rank(g)=0 | a-hyp rank(g)=0
----------------------------
#1: h=su(3)+su(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2)+sp(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+G2c | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
##################
g=F4(4) | real rank(g)=4 | a-hyp rank(g)=4
----------------------------
#1: h=sl(3,R)+sl(3,R) | real rank(h)=4 | ahyp rank(h)=2
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=su(1,2)+su(1,2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=su(1,2)+su(3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#4: h=sl(2,R)+sp(3,R) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#5: h=su(2)+sp(1,2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#6: h=su(2)+sp(3) | real rank(h)=0 | ahyp rank(h)=0
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#7: h=so(4,5) | real rank(h)=4 | ahyp rank(h)=4
 | L0-true | L1-true | L2-false | L3-false
----
#8: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
#9: h=su(2)+G2(2) | real rank(h)=2 | ahyp rank(h)=2
 | L0-false | L1-false | L2-true | L3-false
----
#10: h=sl(2,R)+G2(2) | real rank(h)=3 | ahyp rank(h)=3
 | L0-false | L1-false | L2-true | L3-false
----
##################
g=F4(-20) | real rank(g)=1 | a-hyp rank(g)=1
----------------------------
#1: h=su(1,2)+su(3) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2)+sp(1,2) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=so(8,1) | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=so(9) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=sl(2,R)+G2c | real rank(h)=1 | ahyp rank(h)=1
 | L0-true | L1-true | L2-false | L3-false
----
##################
```

### Type G

```
g=G2c | real rank(g)=0 | a-hyp rank(g)=0
----------------------------
#1: h=su(3) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#2: h=su(2)+su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
#3: h=su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-true | L1-true | L2-false | L3-false
----
##################
g=G2(2) | real rank(g)=2 | a-hyp rank(g)=2
----------------------------
#1: h=sl(3,R) | real rank(h)=2 | ahyp rank(h)=1
 | L0-true | L1-false | L2-false | L3-false
----
#2: h=su(1,2) | real rank(h)=1 | ahyp rank(h)=1
```

```
 | L0-false | L1-false | L2-true | L3-false
----
#3: h=sl(2,R)+sl(2,R) | real rank(h)=2 | ahyp rank(h)=2
 | L0-true | L1-true | L2-false | L3-false
----
#4: h=su(2)+su(2) | real rank(h)=0 | ahyp rank(h)=0
 | L0-false | L1-false | L2-true | L3-false
----
#5: h=sl(2,R) | real rank(h)=1 | ahyp rank(h)=1
 | L0-false | L1-false | L2-true | L3-false
----
##################
```