

THE CLASS CHECK LISTS

corresponding to the

S U P P L E M E N T

T O

Every planar map is four colorable

Part I: discharging

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pages C 1 to C 210

The class check listsClass check list for (a)

If T1#1 is attached at F then the fourth case of the lemma applies.
Otherwise we have one of the following cases.



		T# at F											
		2n	2r	3n	3r	4n	4r	5n	5r	6n	6r	7n	7r
T2# at E	5n	1-6		1-11		1-11		1-2	1-2	1-6	T2T2	1-11	
	5r	1-25		1-28	J2T1	1-28		1-24	1-2	1-25	1-4	1-28	
	6n							1-4	T1T2r				
	6r	1-30	1-6	1-31		1-31		1-25	1-6	1-30		1-31	
	7n												
	7r	1-31	1-11	1-32		1-32		1-28	1-11	1-31		1-32	

The blanks in the tables mean that the corresponding merging is impossible

Class check list for (b)

		T# at G										
		1	2n	2r	3n	3r	4n	5n	5r	6n	6r	7n
at E-F	T2T2 ⁿ	1-11	1-15		1-15		1-15	1-11		1-15		1-15
	T2T2 ^r	T1T2 ⁿ	1-25		1-28	T1T2 ^r	1-28	1-24	1-2	1-25	1-2	1-28

Class check list for I1-1

1	2n	2r	3n	4n	5n	5r	6n	6r	7n	7r
2-6	2-8	2-7	3-10	1-8	2-6	2-6	2-8	2-7	3-10	3-15

Class check list for I1-2

1	2n	5n	6n	7n
2-10	2-16	2-10	1-2	2-4

Class check list for I1-3

5n	5r	6n	6r
3-10	3-10	3-11	3-13

Class check list for I1-4

1	2n	2r	3n	4n	5n	5r	6n	6r	7n	7r
3-24	3-23	3-22	3-10	19-4	3-21	3-21	3-23	1-2	2-9	3-24

Class check list for I1-5

1	2n	2r	3n	3r	4n	5n	5r	6n	6r	7n
3-10	3-29	3-13	4-2	2-6	19-5	3-10	3-10	3-11	3-13	3-27

Class check list for I1-6

5n	5r	6n	6r	7n
4-2	4-2	4-5	4-3	4-15

Class check list for I1-7

1	2n	2r	3n	4n	5n	5r	6n	6r	7r
2-18	2-20	2-19	3-10	19-4	2-19	2-19	2-20	2-19	2-21

Class check list for I1-8

1	2n	2r	3n	3r	4n	5n	5r	6n	6r
3-10	3-18	3-13	4-2	3-14	19-5	3-10	3-10	3-12	3-13

Class check list for I1-9

1	2n	3n	4n	5n	5r	6n	6r	7n	7r
2-22	2-23	3-10	19-4	2-22	1-2	2-23	1-2	2-9	2-24

Class check list for I1-10

1	2n	2r	3n	3r	4n	5n	5r	6n	6r	7n
4-2	4-5	4-3	4-25	3-10	17-8	4-2	4-2	4-5	4-3	4-15

Class check list for I1-11

1	2n	2r	3n	3r	4n	5n	5r	6n	6r	7n
3-10	4-20	3-13	4-2	3-14	19-22	3-10	3-10	4-20	3-13	2-2

Class check list for I1-12

1	2n	2r	3n	4n	5n	5r	6n	6r	7n	7r
4-21	4-23	4-22	3-10	19-4	4-21	4-21	4-23	4-22	3-26	3-25

Class check list for I1-13

5n	5r	6n	6r	7n
4-25	4-25	4-24	4-21	4-28

Class check list for I1-14

1	2n	2r	3n	3r	4n	5n	5r	6n	6r
3-10	4-11	3-13	4-21	3-14	1-10	3-10	3-10	4-11	3-13

Class check list for I1-15

1	2n	3n	4n	5n	6n	7n
5-3	5-5	3-14	18-14	5-3	5-5	2-1

Class check list for I1-17

1	2n	2r	3n	4n	5n	5r	6n	6r	7n	7r
5-20	5-23	5-34	3-27	16-13	5-20	5-20	5-23	1-2	3-26	5-27

Class check list for I1-18

1	2n	2r	3n	4n	5n	5r	6n	6r	7n	7r
5-21	5-24	5-22	3-10	17-4	5-21	5-21	5-24	1-2	4-14	5-26

Class check list for I1-19

1	2n	2r	3n	3r	4n	4r	5n	5r	6n	6r	7n	7r
5-35	6-3	6-4	3-21	3-21	18-22	18-22	5-35	5-35	6-3	6-4	2-2	2-2

Class check list for I1-20

1	2n	2r	3n	3r	4n	4r	5n	5r	6n	6r	7n	7r
5-29	6-2	6-1	3-10	2-6	19-32	17-8	5-29	5-29	6-2	6-1	2-2	2-3

Class check list for I1-21

1	2n	4n	5n	6n
5-31	6-7	18-19	5-31	6-7

Class check list for I1-22


1	2n	2r	3n	3r	4n	4r	5n	5r	6n	6r
5-30	6-6	6-5	18-18	18-16	5-30	5-30	6-6	6-5		

Class check list for I1-23

1	2n	2r	3n	3r	4n	5n	5r	6n	6r
3-10	4-12	3-13	4-2	2-22	14-5	3-10	3-10	4-12	3-13


Class check list for I1-24

5n	5r	6n	7n
5-32	5-32	1-6	1-11

Class check list for I1-26


E \ F	1	2n	2r	3n	3r	4n	5n	5r	6n	6r	7n
1	3-10	3-16	3-13	4-2	3-14	14-5	3-10	3-10	3-16	3-13	3-27
2n		1-6							1-6		
2r		3-19							3-19		
3n											
5n		1-6							1-6		
5r		3-16							3-16		
6n											
6r		1-2							1-2		
7r		3-17							3-17		

(The vertical arrows mean that the same configuration of \mathcal{N} occurs in all those places of the column which do not remain blank.)

Class check list for I1-27


E \ F	1	2n	2r	3n	4n	5n	5r	6n	6r	7n	7r
5n	4-6	4-7	4-8	3-10	19-9	4-6	4-6	4-7	1-2	2-9	2-18
5r	4-6	4-7	4-8			4-6	4-6	4-7			2-18
6n	1-2	1-2	1-2			1-2	1-2	1-2			1-2
6r	4-7	4-9	4-10			4-7	4-7	4-9			2-20
7n	2-18	2-20	2-19			2-18	2-18	2-20			2-21
7r	2-9	2-9	2-9			2-9	2-9	2-9			2-9

Class check list for I1-28

F \ E	5n	5r	6n	7n
5n	2-30	2-28	2-14	4-2
5r	2-30	2-28	3-4	4-2
6r	3-4	2-14	2-35	4-5
7r	4-2	4-2	4-5	4-15

Class check list for I1-29

F \ E	1	2n	2r	3n	4n	5n	5r	6n
5n	4-2	4-5	4-3	4-25	19-34	4-2	4-2	4-5
5r	↓	↓	↓	↓	19-34	↓	↓	↓
6r	↓	↓	↓	↓	1-2	↓	↓	↓
7r	↓	↓	↓	↓	19-33	↓	↓	↓

Class check list for I1-30

$$\frac{T2T2^*n \quad T2T2^*r}{5-28 \quad 5-26}$$

Class check list for (I1-31,a)

G \ E	1	2n	3n	3r	4n	5n	5r	6n	6r	7n
1	2-25	2-34	2-27	2-29	19-6	2-25	1-2	2-34	3-7	3-10
2r	2-34	3-6	↓	3-2	↓	2-34	↓	3-6	3-1	↓
3n	2-29	3-2	↓	3-3	↓	2-29	↓	3-2	2-33	↓
3r	2-27	2-27	↓	2-27	↓	2-27	↓	2-27	2-27	↓
4r	19-6	19-6	↓	19-6	↓	19-6	↓	19-6	19-6	↓
5n	1-2	1-2	↓	1-2	↓	1-2	↓	1-2	1-2	↓
5r	2-25	2-34	↓	2-29	↓	2-25	↓	2-34	3-7	↓
6n	3-7	3-1	↓	2-33	↓	3-7	↓	3-1	1-4	↓
6r	2-34	3-6	↓	3-2	↓	2-34	↓	3-6	3-1	↓
7r	3-10	3-10	↓	3-10	↓	3-10	↓	3-10	3-10	↓

Class check list for (I1-31,b)

A \ E	1	2n	2r	3r	4r	5n	5r	6r	7r
deg(A) = 5	2-28	1-6	3-5	3-32	1-31	2-28	2-28	3-5	4-2
deg(A) = 6	2-26	1-6	3-8	1-31	1-31	2-26	2-26	3-8	4-3

Class check list for (I1-31,o)

E:	1	2n	2r	3r	4r	5n	5r	6r	7r
	2-27	1-41	3-9	3-33	1-32	2-27	2-27	3-9	4-2

Class check list for I1-32

E-F \ G	1	2n	2r	3n	5n	5r	6n
T2T2* _n	3-32	3-31	3-30	4-26	3-32	3-32	3-31
T2T2* _r	2-30	3-4	2-31	4-27	2-30	2-30	3-4

Class check list for I1-33

T2T2* _n	T2T2* _r
6-26	6-25

Class check list for I2-1

5n	5r	6n	7n
1-23	1-3	1-25	1-29

Class check list for I2-2

2r	3r	4r	6r	7r
1-14	1-17	1-17	1-14	1-17

Class check list for I2-3

1	2n	3n	4n	5n	6r	7n
1-3	1-11	1-13	1-13	1-3	1-11	1-13

Class check list for I2-4

only T2T2*_n can be attached at E-F → 1-4

Class check list for I2-5T2T2ⁿ T2T2^r

1-21 1-22

Class check list for I2-6

1	2n	2r	3n	4n	5n	5r	6n	6r	7n	7r
7-11	7-13	7-14	8-17	29-3	7-11	7-11	7-13	7-14	9-1	7-12

Class check list for I2-7

1	2n	2r	3n	4n	5n	5r	6n	6r	7n	7r
9-10	9-9	9-8	10-12	29-6	9-10	9-10	9-9	9-8	10-9	7-10

Class check list for I2-8

1	2n	2r	3n	5n	5r	6n	6r	7r
9-19	9-20	9-21	10-7	9-19	9-19	9-20	9-21	9-22

Class check list for I2-9

1	2n	2r	5n	5r	6n	6r	7n	7r
7-8	7-6	7-5	7-8	7-8	7-6	7-5	7-4	7-7

Class check list for I2-10

1	2n	2r	3n	4n	5n	5r	6n	7n
9-2	9-3	7-35	9-9	29-7	9-2	9-2	9-3	10-1

Class check list for I2-11

1	2n	3n	3r	5n	6n
7-26	7-18	9-13	7-17	7-26	7-18

Class check list for I2-12

5n	5r	6n	6r	7n	7r
1-2	8-9	1-2	1-2	8-7	8-3

Class check list for I2-13

1	2n	3n	4n	5n	5r	6n	6r	7r
7-29	1-22	1-27	1-27	7-29	7-29	1-22	1-2	7-34



Class check list for I2-14

1	2n	2r	3n	4n	5n	5r	6n
7-29	1-25	1-3	1-29	1-29	7-29	1-3	1-25

Class check list for I2-15

1	2n	3n	4n	5r	5r	6n	6r	7r
7-30	7-32	7-23	29-6	7-30	1-2	7-32	1-2	7-34

Class check list for I2-16

(symmetric)

1	2	3	4	5	6	7
11-12	11-13	7-11	28-3	11-12	11-13	7-1

Class check list for I2-17

7	2n	2r	3n	4n	5n	5r	6n	6r	7n	7r
10-23	11-8	11-6	7-11	28-3	10-23	10-23	11-8	1-2	9-1	11-7

Class check list for I2-18

(symmetric)

1	2	5	6	7
11-20	11-22	11-20	1-2	11-35

Class check list for I2-19

5n	5r	6n	6r	7n
1-1	1-1	1-6	1-1	1-11

Class check list for I2-20

5n	6n	7n
1-3	1-11	1-13

Class check list for I2-21

E-F: T_2T_2n T_2T_2r T_2T_1r

7-35	7-30	7-19
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E	F	5n	5r	6n	6r
1		7-19		7-16	

(no f,t)



Class check list for I2-22

$$E-F: \begin{array}{ccc} T2T2n & T2T2r & T2T1n \\ \hline 7-35 & 7-20 & 7-17 \end{array}$$



F \ E	5n	5r	6n	6r	7r
1		7-26		1-2	7-23

Class check list for I2-23

$$\begin{array}{ccc} T2T2^*n & T2T2^*r \\ \hline 8-22 & 8-21 \end{array}$$

Class check list for I2-24

$$\begin{array}{ccc} T2T2^*n & T2T2^*r \\ \hline 7-28 & 9-28 \end{array}$$

Class check list for I2-25

$$\begin{array}{ccc} T2T2^*n & T2T2^*r \\ \hline 9-29 & 10-11 \end{array}$$

Class check list for I2-26

$$E-F: \begin{array}{ccc} T2T2n & T2T2r & T2T1n \\ \hline 8-12 & 8-12 & 8-15 \end{array}$$



F \ E	5n	5r	6n	6r	7r
1		8-15		1-2	8-13

Class check list for I2-27

$$\begin{array}{ccc} T2T2^*n & T2T2^*r \\ \hline 11-23 & 11-24 \end{array}$$

Class check list for I2-29

F \ E	5n	6n	7n
5r	9-25	9-25	9-25
6r	9-25	1-2	1-2
7r	9-25	1-2	9-24

Class check list for I2-30

E \ F	5n	6n
5r	8-24	1-11 (splitting rule, see Figure 3)
6r	1-2	1-2
7r	8-27	9-30

Class check list for I2-31

E \ F	5n	6n	7n
5r	1-2	→	→
6r	1-2	→	→
7r	8-27	9-31	9-29

c.f. Lemma(T2, T2, T) .

Class check list for I2-33

E:	1	3r
	8-23	8-26

Class check list for (I2-34, a)

E:	5r	6r	7r
	10-10	1-2	10-9

Class check list for (I2-34, b)

E-F \ G-H	T2T2n	T2T2r	T2T1n
T2T2n	10-10	→	→
T2T2r	1-24	10-10	→
T2T1n	10-10	→	→

Class check list for I2-35

1	2r	4r	5n	5r	6n	6r	7n
11-21	1-22	1-27	11-21	11-21	1-2	1-22	11-24

Class check list for I3-1

<u>T2T2ⁿ</u>	<u>T2T2^r</u>
12-14	12-13

Class check list for I3-2

<u>T2T2ⁿ</u>	<u>T2T2^r</u>
13-31	13-30

Class check list for I3-3

<u>T2T2ⁿ</u>	<u>T2T2^r</u>
12-26	12-25

Class check list for I3-4

<u>T2T2ⁿ</u>	<u>T2T2^r</u>
13-19	13-20

Class check list for I3-5

<u>T2T2</u>	<u>T2T1</u>
14-28	14-27

if T1#1 at F → T#5r at E → 14-27

Class check list for I3-6

<u>1</u>	<u>2n</u>	<u>3n</u>	<u>4n</u>	<u>4r</u>	<u>5n</u>	<u>5r</u>	<u>6n</u>	<u>6r</u>	<u>7n</u>
16-14	17-15	16-26	16-34	2-1	16-14	16-14	17-15	16-16	16-13

Class check list for I3-7

<u>1</u>	<u>2n</u>	<u>3n</u>	<u>4n</u>	<u>4r</u>	<u>5n</u>	<u>5r</u>	<u>6n</u>	<u>6r</u>	<u>7n</u>
16-14	17-32	16-26	16-34	16-18	16-14	16-14	17-32	16-16	16-13

Class check list for I3-8

<u>5n</u>	<u>5r</u>	<u>6n</u>	<u>6r</u>	<u>7n</u>
16-14	16-14	16-6	16-16	16-13
		11-11		
		(no splitting)		

Class check list for I3-9

<u>1</u>	<u>2n</u>	<u>3n</u>	<u>4n</u>	<u>4r</u>	<u>5n</u>	<u>5r</u>	<u>6n</u>	<u>6r</u>	<u>7n</u>
16-14	18-25	16-26	16-34	16-18	16-14	1-2	18-25	16-16	16-13

Class check list for I3-10

	2n	3n	4n	4r	5n	5r	6n	6r	7n
16-14	17-34	16-26	46-34	16-18	16-14	16-14	17-34	16-16	16-13

Class check list for I3-11

	2n	3n	4n	5n	5r	6n	6r	7n
1-6	1-11	1-11	1-2	1-2	1-6	16-16	1-11	

Class check list for I3-12

	1	2n	4n	4r	5n	5r	6n	6r
16-14	20-15	46-34	2-2	16-14	16-14	20-15	16-16	

Class check list for I3-13

	1	2n	2r	3n	4n	4r	5n	5r	6n	6r	7n
17-25	17-26	17-27	17-28	46-33	2-1	17-25	17-25	17-26	17-27	17-10	

Class check list for I3-14

	5n	5r	6n	7n
16-11	16-11	1-2	16-35	

Class check list for I3-15

	1	2n	2r	3n	4n	5n	5r	6n	7n
16-33	6-31	16-19	6-33	6-33	16-33	16-33	6-31	6-33	

Class check list for I3-16

	1	2n	2r	3n	4n	4r	5n	5r	6n	6r	7n
17-29	17-35	20-17	20-21	46-35	2-2	17-29	17-29	17-35	20-17	17-31	

Class check list for I3-17

	5n	5r	6n	6r	7n
20-8	20-8	20-20	16-16	17-33	

Class check list for I3-18

	1	2n	2r	3n	4n	4r	5n	5r	6n	6r	7n
17-30	20-14	20-18	20-22	46-33	2-1	17-30	17-30	20-14	20-14	20-14	7-10

Class check list for I3-19

	1	2n	2r	3n	4n	5n	5r	6n	6r	7r
17-4	17-5	17-6	3-10	19-4	17-4	17-4	17-4	17-5	17-6	17-3

Class check list for I3-21

1	2n	2r	3n	4n	5n	5r	6n	6r	7r
16-6	16-9	16-8	3-10	19-4	16-6	16-6	16-9	16-8	16-2

Class check list for I3-22

5n	5r	6r	7r
18-27	18-27	1-2	20-5

Class check list for I3-23

5n	5r	6r	7r
20-12	20-12	1-2	20-1

Class check list for I3-24

5n	5r	6r	7r
18-24	18-24	1-2	20-3

Class check list for I3-25

5n	5r	6n	6r
16-22	16-23	16-28	16-14

Class check list for I3-26

5n	5r	6n	7n
16-25	16-25	1-2	16-29

Class check list for I3-27

5n	5r	6n	7n
20-14	20-14	1-2	20-13

Class check list for I3-28

2n	2r	3n	4n	5n	5r	6n	6r	7n	7r	
18-3	18-19	26	3-10	19-4	19-13	19-13	19-25	19-26	2-9	19-27

Class check list for I3-29

1	2n	2r	3n	3r	4n	4r	5n	5r	6n	6r	7n	7r
18-4	18-6	18-5	18-4	3-14	16-18	16-18	18-4	18-4	18-6	18-5	17-1	16-1

Class check list for I3-30

1	2n	2r	3n	3r	4n	5n	5r	6n	6r	7n
2-10	21-12	3-13	4-2	3-14	18-5	3-10	3-10	21-12	3-13	3-27

Class check list for I3-31

1	2n	3n	4n	5n	5r	6n	6r	7n	7r
21-9	21-10	3-10	19-9	21-9	21-9	21-10	1-2	2-9	1-4

Class check list for I3-32

1	2n	2r	3n	3r	4n	5n	5r	6n	6r	7n
3-10	21-11	3-13	4-2	3-14	19-5	3-10	3-10	21-11	3-13	3-27

Class check list for I3-33

1	2n	2r	4n	4r	5n	5r	6n	6r
21-18	21-21	21-20	19-32	17-8	21-18	21-18	21-21	21-20

Class check list for I3-34

1	2n	3n	4n	5n	5r	6n	6r	7n	7r
19-35	1-22	3-10	19-4	19-35	19-35	1-22	1-2	2-9	19-9

Class check list for I3-35

1	2n	3n	4n	5n	5r	6n	6r	7n	7r
18-35	1-22	1-27	1-27	1-21	1-2	1-22	1-2	1-27	1-5

Class check list for (TnT), (T2nT), (T2nT2)



F	1	2n	2r	3n	4n	5n	5r	6n	7n
1		1-6	TnT/1	1-11	→			1-6	1-11
2n	TnT/1					TnT/1+			
2r	1-6	1-13		1-16	→	1-6		1-13	1-16
3r	1-11	1-16		1-18	→	1-11		1-16	1-18
4r	1-11	1-16		1-18	→	1-11		1-16	1-18
5n						1-4	TnT/2		
5r		1-6	TnT/1+	1-11	→	1-4	→	1-6	1-11
6r	1-6	1-13		1-16	→	1-6		1-13	1-16
7r	1-11	1-16		1-18	→	1-11		1-16	1-18

Class check list for I4-1

TnT/1n	TnT/1r	TnT/2
16-19	16-20	16-17

Class check list for I4-2

TnT/1n	TnT/1r	TnT/2
17-16	17-17	16-17

Class check list for I4-3

TnT/2	TnT/1+n
16-17	16-21

Class check list for I4-4

TnT/1n	TnT/1r	TnT/2
20-10	20-9	16-17

Class check list for I4-5

T2T2n	T2T2r
20-7	20-11

Class check list for I4-6

T2T2n	T2T2F
17-20,	17-19

Class check list for I4-7

$T2T2_n$	$T2T2_r$
19-29	19-28

Class check list for I4-8

$T2T2_n$	$T2T2_r$
16-27	6-18

Class check list for I4-9

$F-G$	E	$5n$	$5r$	$6r$	$7r$
$T2T2_n$		16-27	16-27	16-27	16-27
$T2T2_r$		6-18	6-18	1-2	16-4

Class check list for I4-10

$2r$	$3r$	$4r$	$6r$	$7r$
1-14	1-17	1-17	1-14	1-17

see
Lemma (6-6)Class check list for I4-11

$5n$	$5r$	$6n$	$7n$
6-20	1-3	6-21	6-22

Class check list for I4-12

$5n$	$5r$	$6n$	$7n$
6-15	2-2	6-13	6-14

Class check list for I4-13

$5n$	$5r$	$6n$	$7n$
6-28	2-2	6-30	

Class check list for I4-14

1	$2n$	$3n$	$4n$	$5n$	$6n$	$7n$
2-2	2-8	2-17	2-17	2-2	2-8	2-17

Class check list for I4-15

$5n$	$5r$	$6r$	$6r$	$7n$
1-2	5-7	1-2	$\begin{pmatrix} 1-6 \\ 1-11 \end{pmatrix}$	46-19
(by split rule)				

Class check list for I4-16

F	5n	6n	7n
E	5r	1-5	
	6r	1-29	1-25
	7r	1-25	1-30

Class check list for I4-17

(see Lemma (T2, T2, T))

Class check list for I4-21

5n	5r	6n	6r	7r
28-13	28-13	28-17	1-6	28-12
			(2-11)	
			(3 split rule)	

Class check list for I4-22

1	2n	2r	3r	4r	5n	5r	6n	6r	7r
31-18	31-19	31-20	5-11	19-18	31-18	31-18	31-19	31-20	5-10

Class check list for I4-23

1	2i	3i	4r	5n	5r	6n	6r	7r
30-13	30-11	5-11	19-18	30-13	30-13	30-4	30-11	5-10

Class check list for I4-24

1	2n	2r	3r	4r	5n	5r	6n	6r	7n
25-4	25-12	25-13	3-10	19-4	25-4	25-4	25-12	25-13	25-16

Class check list for I4-25

5n	5r	6n	6r	7n
28-6	28-6	1-2	28-8	28-4

Class check list for I4-26

5n	5r	6n	6r	7n
22-8	22-8	1-2	22-22	22-11

Class check list for I4-27

1	2r	3r	4r	5n	5r	6n	6r	7n	7r
29-21	1-22	1-27	19-9	1-2	24-21	1-2	1-22	29-23	1-27

Class check list for I4-28

5n	5r	6n	6r	7r
1-2	24-6	24-7	1-2	24-27

Class check list for I4-29

5n	5r	6n	6r	7r
26-18	26-18	1-1	26-32	23-7

Class check list for I4-30

2r	3r	4r	5n	5r	6n	6r	7r
1-6	1-11	1-11	1-2	1-2	23-21	1-6	1-11

Class check list for I4-31

5n	5r	6n	6r	7n
30-18	1-2	30-24	24-22	30-17

Class check list for I4-32

5n	5r	6n	6r
24-10	1-1	24-26	1-1

Class check list for I4-33

2n	3n	4n	5n	5r	6n	6r	7n
1-6	1-11	1-11	1-2	1-2	1-6	24-22	1-11

Class check list for I4-34

1	2r	4r	5n	5r	6n	6r
24-14	24-20	16-18	24-14	24-14	24-30	24-20

Class check list for I4-35

2n	5n	5r	6n	6r	7n
1-6	1-2	1-2	1-6	26-28	1-11

Class check list for I5-1

5n	5r	6n	6r	7r
26-35	1-2	26-29	1-2	26-30

Class check list for I5-2

1	2n	2r	3n	3r	5r	6n	6r	7r
22-9	25-8	25-8	25-14	22-9	22-9	25-8	25-9	22-20

Class check list for I5-3

5n	5r	6n	6r	7r
31-16	31-16	30-16	31-17	2-9

Class check list for I5-4

1	2n	2r	3n	5n	5r	6n	6r	7r
30-27	30-25	30-26	30-30	30-27	30-27	30-25	1-2	30-29

Class check list for I5-5

5n	5r	6n	6r	7r
1-2	30-22	30-16	30-32	2-9

Class check list for I5-6

1	2n	3r	4n	5n	5r	6n	6r	7r
22-9	1-22	1-27	1-27	22-9	1-2	1-22	1-2	22-20

Class check list for I5-7

1	2n	2r	3n	4n	5n	5r	6n
7-29	6-13	2-2	6-14	6-14	7-29	2-2	6-13

Class check list for I5-8

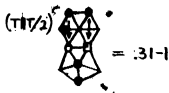
1	2n	3n	4n	5r	6n	6r	7r	
7-30	32-10	9-23	29-6	7-30	1-2	32-10	1-2	7-34

Class check list for I5-9

5n	5r	6r	7r
5-32	1-4	1-6	1-11

Class check list for I5-11.

$T_1 T_1 / n$	$T_1 T_1^* / r$	$T_1 T_1 / 2$
30-10	30-9	30-8

Class check list for I5-12

↓

Class check list for I5-13

$T_1 T_1 / 2$	$T_1 T_1^* / n$
30-23 ^o	30-31

Class check list for I5-14

$T_2 T_2^* / n$	$T_2 T_2^* / r$
23-22	23-11

Class check list for I5-15

$T_2 T_2^* / n$	$T_2 T_2^* / r$
28-15	28-18

Class check list for I5-16

$T_2 T_2^* / n$	$T_2 T_2^* / r$
24-10	24-26

Class check list for I5-17

$T_2 T_2^* / n$	$T_2 T_2^* / r$
6-29	6-31

Class check list for I5-18

$T_2 T_2^* / n$	$T_2 T_2^* / r$
30-7	30-34

Class check list for I5-19

$T_2 T_2^* / n$	$T_2 T_2^* / r$
30-18	30-29

Class check list for 15-20

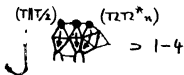
5n	5r	6n	6r	7n	7r
1-21	1-2	1-22	1-2	1-27	22-26

Class check list for 15-21

E-F:	T2T2n	T2T2r	T2T1r
	1-21	1-22	1-27



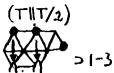
F	5n	6n	7n	
E	1	22-16	22-16	22-16

Class check list for 15-22Class check list for (15-23, a)

F	5n	6n	7n
5r	1-2	1-2	1-2
6r	23-23	23-23	23-23

Class check list for (15-24, a)

F	5n	6n	7n
5r	1-2	1-2	1-2
6r	26-31	26-31	26-31

Class check list for 15-25



Class check list for I5-26

5n	5r	6n	7n
35-12	35-12	1-2	35-17

Class check list for I5-27

5n	5r	6n	7n
36-18	36-18	1-2	36-22



Class check list for I5-29

2r	3r	4r	5n	5r	6n	6r	7r
1-6	1-11	1-11	1-2	1-2	53-18	1-6	1-11

Class check list for I5-30

5r	5r	6n	7n
21-26	2-2	21-27	12-10

Class check list for I5-31

1	2n	2r	3n	4n	5n	5r	6n	7n
19-35	6-13	2-2	3-10	19-4	19-35	2-2	6-13	2-9



Class check list for I5-32

5n	5r	6r	7r
47-24	47-24	1-2	47-18

Class check list for I5-33

5n	5r	6r	7r
47-7	47-7	1-2	47-5



Class check list for I5-34

5n	5r	6n	7n
46-8	46-8	46-10	16-16 5-10

Class check list for I5-35

1	2n	3n	4n	5n	6n	7n	7r
1-3	1-11	1-12	1-13	1-3	1-11	1-13	49-27

Check list for $\Delta_{11} S^+$

The entries correspond to the positions of the 8-situations in Table 1 and to the positions of the additional vertices in each 8-situation.

2-1	2-1	2-1	2-2	2-1	2-2	2-1	2-2	2-1	2-2
		$\begin{cases} 1-1 \\ 1-2 \end{cases}$	2-3	$\begin{cases} 1-1 \\ 1-4 \end{cases}$	2-3	$\begin{cases} 1-1 \\ 1-2 \end{cases}$	$\begin{cases} 1-1 \\ 2-4 \end{cases}$	$\begin{cases} 1-2 \\ 1-4 \end{cases}$	$\begin{cases} 1-2 \\ 2-5 \end{cases}$
2-1	2-2	2-2	2-2	2-2	2-2				
	2-3	$\begin{cases} 1-1 \\ 3-20 \end{cases}$		$\begin{cases} 1-1 \\ 1-2 \end{cases}$					
$\begin{cases} 2-1 \\ 2-2 \end{cases}$		$\begin{cases} 2-2 \\ 3-26 \end{cases}$		$\begin{cases} 2-1 \\ 2-2 \end{cases}$		$\begin{cases} 2-1 \\ 2-2 \end{cases}$		$\begin{cases} 2-2 \\ 2-9 \end{cases}$	
5-1		21-23		5-13		21-13		5-12	
$\begin{cases} 11-10 \\ 23-1 \end{cases}$									
								$\begin{cases} 2-1 \\ 2-2 \end{cases}$	
$\begin{cases} 2-2 \\ 3-26 \end{cases}$		$\begin{cases} 2-2 \\ 3-26 \end{cases}$		$\begin{cases} 2-2 \\ 3-26 \end{cases}$		$\begin{cases} 2-2 \\ 3-26 \end{cases}$		2-1	
49-11		49-7		19-15		19-19		$\begin{cases} 1-1 \\ 1-2 \end{cases}$	
2-1		$\begin{cases} 7-1 \\ 7-2 \end{cases}$		$\begin{cases} 7-2 \\ 9-1 \end{cases}$		$\begin{cases} 7-2 \\ 7-27 \end{cases}$		$\begin{cases} 7-2 \\ 7-27 \end{cases}$	
$\begin{cases} 1-2 \\ 2-4 \end{cases}$		11-10		56-27		11-14		11-14	

Check list for Lemma 3

$\{7^{-2}$ 7^{-27}	$\{7^{-1}$ 7^{-3}	$\{7^{-1}$ 7^{-3}	$\{7^{-1}$ 7^{-3}	$\{7^{-1}$ 7^{-3}
11-14	10-16	13-13	56-27	32-3
$\{7^{-2}$ 7^{-2}				
11-17		2-1	2-2	2-3
			1-1	$\{7^{-1}$ 7^{-2}
	$\{9^{-1}$ 10^{-2}			
		$\{9^{-1}$ 10^{-2}	$\{7^{-1}$ 7^{-3}	$\{7^{-2}$ 7^{-3}
			11-14	11-17
$\{9^{-1}$ 10^{-2}	$\{7^{-1}$ 7^{-3}	$\{7^{-1}$ 7^{-3}	$\{7^{-1}$ 7^{-3}	$\{7^{-1}$ 7^{-3}
12-18	25-21	22-26	22-28	22-28

(The only 1's, 12/18, etc. refer to Table J, - page 2, etc., 11.)

Check list for Lemma 3*

	7-1			{7-2 7-7	11-3
32-12	32-20	{7-1 7-2		{7-2 7-27	{7-2 7-27
{7-2 7-27	{7-2 7-27	{7-7 8-13		11-19	32-18
				{25-19 27-24	{25-19 27-25
11-18	32-16	12-35		22 28	22-30
{25-19 27-25	{59-15 59-17	{22-1 22-4		{22-1 22-4	{22-1 22-4
22 30	34-19	28 28		28 30	
{26-1 26-2	{26-1 26-3	{22-1 22-4		{43-13 43-15	{44-3 44-4
56 26	56 26	56 26		43-11	44 26
{45-21 45-28	{7-1 7-2			1-3	2 4
				{7-1 7-3	{7-1 7-3
				1-23	6-15
45-15				11-15	11-16
2-2					
{7-1 7-2	{7-2 7-7	{12 6 12-7		{7-1 7-3	{7-1 7-3
6-28					
11-16	11-26	12-27		28-19	28-33

Deck Mat for Lemma 3!

$\begin{Bmatrix} 7^{-1} \\ 7^{-3} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-1} \\ 7^{-3} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-1} \\ 7^{-3} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-1} \\ 7^{-3} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-1} \\ 7^{-3} \end{Bmatrix}$
25-25	25-25	25-25	25-25	25-25
$\begin{Bmatrix} 7^{-1} \\ 7^{-3} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-1} \\ 7^{-3} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-1} \\ 7^{-3} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-1} \\ 7^{-3} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-1} \\ 7^{-3} \end{Bmatrix}$
27-11				29-16
$\begin{Bmatrix} 7^{-2} \\ 7^{-2} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-2} \\ 7^{-2} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-2} \\ 7^{-2} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-2} \\ 7^{-2} \end{Bmatrix}$	$\begin{Bmatrix} 7^{-1} \\ 7^{-3} \end{Bmatrix}$
29-14	29-20	57-8		59-27
$\begin{Bmatrix} 7^{-2} \\ 7^{-2} \end{Bmatrix}$				
49-34				
$\begin{Bmatrix} 13^{-1} \\ 13^{-1} \end{Bmatrix}$	$\begin{Bmatrix} 13^{-1} \\ 13^{-1} \end{Bmatrix}$	$\begin{Bmatrix} 13^{-1} \\ 13^{-1} \end{Bmatrix}$	$\begin{Bmatrix} 13^{-1} \\ 13^{-1} \end{Bmatrix}$	$\begin{Bmatrix} 13^{-1} \\ 13^{-1} \end{Bmatrix}$
19-21	19-22	19-22	19-22	19-22
$\begin{Bmatrix} 35^{-1} \\ 35^{-5} \end{Bmatrix}$	$\begin{Bmatrix} 35^{-1} \\ 35^{-6} \end{Bmatrix}$	$\begin{Bmatrix} 35^{-1} \\ 35^{-6} \end{Bmatrix}$	$\begin{Bmatrix} 13^{-2} \\ 13^{-12} \end{Bmatrix}$	$\begin{Bmatrix} 13^{-2} \\ 13^{-12} \end{Bmatrix}$
39-24	36-35	36-35	14-23	14-23
$\begin{Bmatrix} 13^{-2} \\ 13^{-12} \end{Bmatrix}$	$\begin{Bmatrix} 35^{-22} \\ 35^{-1} \end{Bmatrix}$	$\begin{Bmatrix} 14^{-21} \\ 35^{-4} \end{Bmatrix}$	$\begin{Bmatrix} 35^{-1} \\ 35^{-4} \end{Bmatrix}$	$\begin{Bmatrix} 35^{-1} \\ 35^{-4} \end{Bmatrix}$
14-23	35-29	35-13	35-34	

Check List (cf. Lemma ...)

$\begin{Bmatrix} 12-1 \\ 12-1 \end{Bmatrix}$	$\begin{Bmatrix} 12-1 \\ 12-1 \end{Bmatrix}$	$\begin{Bmatrix} 12-1 \\ 12-2 \end{Bmatrix}$	$\begin{Bmatrix} 12-1 \\ 12-2 \end{Bmatrix}$	$\begin{Bmatrix} 12-1 \\ 12-2 \end{Bmatrix}$
	14-29	40-21	60-15	40-33
$\begin{Bmatrix} 3-28 \\ 3-27 \end{Bmatrix}$				
5-16				
$\begin{Bmatrix} 3-28 \\ 3-26 \end{Bmatrix}$	$\begin{Bmatrix} 3-28 \\ 3-27 \end{Bmatrix}$	$\begin{Bmatrix} 3-28 \\ 3-27 \end{Bmatrix}$	$\begin{Bmatrix} 3-28 \\ 3-27 \end{Bmatrix}$	$\begin{Bmatrix} 3-28 \\ 3-26 \end{Bmatrix}$
5-2	5-17	21-17	21-32	5-18
$\begin{Bmatrix} 3-2 \\ 3-26 \end{Bmatrix}$	$\begin{Bmatrix} 3-2 \\ 3-26 \end{Bmatrix}$			
21-16	21-31			
	$\begin{Bmatrix} 3-2 \\ 4-3 \end{Bmatrix}$	$\begin{Bmatrix} 4-3 \\ 4-3 \end{Bmatrix}$		$\begin{Bmatrix} 17-2 \\ 18-7 \end{Bmatrix}$
	5-19	11-18		
				18-2
$\begin{Bmatrix} 2-2 \\ 16-7 \end{Bmatrix}$	$\begin{Bmatrix} 16-12 \\ 16-18 \end{Bmatrix}$	$\begin{Bmatrix} 16-12 \\ 16-18 \end{Bmatrix}$	$\begin{Bmatrix} 2-24 \\ 4-14 \end{Bmatrix}$	2-2
$\begin{Bmatrix} 2-2 \\ 3-26 \end{Bmatrix}$	$\begin{Bmatrix} 22-12 \\ 22-14 \end{Bmatrix}$	$\begin{Bmatrix} 1-1 \\ 1-2 \end{Bmatrix}$	2-9	
	5-33	21-15	5-19	21-14

check list for Lemma 4

19-19	19-17	49-12	49-8	29-26f
$\begin{cases} 2-2 \\ 3-28 \end{cases}$	$\begin{cases} 3-26 \\ 3-27 \end{cases}$	$\begin{cases} 2-2 \\ 11-12 \end{cases}$	$\begin{cases} 11-26 \\ 11-6 \end{cases}$	$\begin{cases} 11-1 \\ 11-3 \end{cases}$
		11-17	11-30	11-19
$\begin{cases} 2-2 \\ 4-20 \end{cases}$	$\begin{cases} 2-2 \\ 3-10 \end{cases}$	$\begin{cases} 11-2 \\ 11-13 \end{cases}$	$\begin{cases} 2-2 \\ 3-26 \end{cases}$	$\begin{cases} 3-28 \\ 3-27 \end{cases}$
6-5	5-35			19-14
$\begin{cases} 3-28 \\ 3-21 \end{cases}$	$\begin{cases} 3-28 \\ 3-27 \end{cases}$	$\begin{cases} 3-28 \\ 3-27 \end{cases}$	$\begin{cases} 3-28 \\ 3-27 \end{cases}$	
49-9	19-20	49-13	29-27	
$\begin{cases} 7-2 \\ 9-1 \end{cases}$	$\begin{cases} 7-2 \\ 10-1 \end{cases}$	$\begin{cases} 7-2 \\ 10-1 \end{cases}$	$\begin{cases} 7-2 \\ 10-1 \end{cases}$	$\begin{cases} 7-2 \\ 10-1 \end{cases}$
11-11	32-32	11-29	32-14	56-24
$\begin{cases} 9-14 \\ 10-4 \end{cases}$	$\begin{cases} 9-14 \\ 10-9 \end{cases}$	$\begin{cases} 9-14 \\ 10-4 \end{cases}$	$\begin{cases} 25-14 \\ 30-21 \end{cases}$	$\begin{cases} 25-1 \\ 29-2 \end{cases}$
11-27	11-27	11-27	22-31	25-29
$\begin{cases} 25-1 \\ 29-2 \end{cases}$			$\begin{cases} 7-2 \\ 10-3 \end{cases}$	$\begin{cases} 7-2 \\ 10-3 \end{cases}$
25-24	$\begin{cases} 1-2 \\ 1-3 \end{cases}$	$\begin{cases} 1-2 \\ 1-3 \end{cases}$	11-28	11-28

Check list for lemma

$\{7-2$ $\{4-2$	$\{4-2$	$\{4-2$	$\{4-2$	$\{7-2$
11-30 2-1	32-15	56-23	32-31 2-4	32-17 21-2
$\{1-2$ $\{21-2$	2-1			$\{1-2$ $\{32-7$
2-2	2	2-2	2-2	32-23
				$\frac{1}{2}$
	7-1	$\{7-1$ $\{7-2$		
				$\{17-1$ $\{17-2$

Check List for Lemma 2'

{16-4 16-5		{11-1 11-3		
	16-12	16-12		2-12
2-12	2-13	2-13	16-2	16-2
16-2	49-16	11-10	11-1	11-3
19-2	19-2	19-7	49-6	29-18
7-2	7-2	7-2	7-2	7-3

Check List for Lemma 2'

7-3	7-3			25-16
25-1	25-1	$\begin{Bmatrix} 7 \\ 73 \end{Bmatrix}$		
			7-2	7-2
7-2		$\begin{Bmatrix} 7 \\ 73 \end{Bmatrix}$	$\begin{Bmatrix} 32 \\ 32-2 \end{Bmatrix}$	$\begin{Bmatrix} 1 \\ 32-7 \end{Bmatrix}$
7-9	32-1	56-14	32-27	

Figure 9

Class check list for (1a)



(S of Type 5-U,
non-reflected)

The entries in the
tables to the right
correspond to the
positions of the S-
situations in Table 1

Table 1	Page 1
CTS#08	
CTS#09	→

Table 1	Page 2
CTS#10	→
CTS#10	
CTS#10	→
CTS#10	→

Table 1	Page 3
CTS#10	→
	CTS#10
	CTS#10
CTS#10	→

Table 1	Page 4
	→
	CTS#10

Table 1	Page 5
CTS#10	

Class check list for (1b)



(S0 of Type 5-U, non-reflected)

Table 1	Page 1
CTS#07	→

Class check list for (1c)



S1 of Type 5-U, non-reflected, at A
S1 or S2 of Type 5-U, reflected, at E

(see following pages)

Class check list for (1c), continued#021 at A

if $\deg(E) = 7 \rightarrow 16-3$

Table	Page
	6
25-20	→
→	26-2 →

Table	Page
	7
X	

#022 at A

if $\deg(E) = 7 \rightarrow 18-9$

Table	Page
	7
26-5	→
	26-5

#023 at A

Table	Page
	5
18-10	→
18-10	
18-10	→

Table	Page
	6
18-10	→
→	14-2
→	

Table	Page
	7
26-4	→
	31-10
	31-10

#025 at A

$\deg(E) = 7 \rightarrow 48-12$ (no other S fits)

Class check list for (1c), continued²

#026 at A

#027 at A

#028 at A

#029 at A

48-2 (in all cases)

 one of ##
 199, ..., 203 at E
 in all these
 cases
#032 or #033 at Aif $\deg(E)=7 \rightarrow 25-18$

Table	Page 6
43-28	43-28
44-1	44-1

Table	Page 7
X	

#034 or #035 at Aif $\deg(E)=7 \rightarrow 25-18$

Table	Page 6
1-1	1-1
44-4	44-4

Table	Page 7
X	

#036 at Aif $\deg(E)=7 \rightarrow 25-18$, if $\deg(E)=8 \rightarrow 44-4$ (#224 or 225 at E)#037 or 038 or 039 or 040 at Aif $\deg(E)=7 \rightarrow 31-11$ if $\deg(E)=8 \rightarrow 44-5$ (one of ## 226, ..., 230, 1 at E)

Class check list for (1c) finished

#04) at A

if $\deg(E) = 7 \rightarrow 3F-14$ if $\deg(E) = 8 \rightarrow 44-18$ (one of ## 226, ..., 230) at E)Class check list for (1d)if S is one of ## 171, 180, 181, 191, 199 \rightarrow CTS #11

if S is one of ## 174, 192, 198

T [#] 5r	T [#] 6r	T [#] 11r	T [#] 6r	T [#] 7r	T [#] 7r
1-21	1-2	1-22	1-2	2-9	CTS #11.1

Class check list for (1e)

S is one of ## 171, 174, 180, 181, 191, 192, 198, 199

 \rightarrow CTS #12Class check list for (1f)SO is #151 \rightarrow 6-8Class check list for (1g)

SI at A:

Table		Page 5	
5-4	6-9	21-19	21-39 6-10
21-24	21-33		

Class check list for (1h)SO is #151 \rightarrow CTS #13

Class check list for (11)

S1 of Type 6-U, non- π -reflected, at A

S1 or S2 of Type 6-U, reflected, at E

(the S at E has no lower number than the S at A)

#161 at A.



if $\deg(E) = 7 \rightarrow 17-7$

Table 1 Page 6			
22-1			
1-1	1-1	1-1	1-1
52-20		22-4	22-4

#162 or #163 or #164 at A



if $\deg(E) = 7 \rightarrow 17-7$

if one of ## 211, ..., 221 at E \rightarrow 1-1 (215, 218 do not fit)

if #224 or 225 at E \rightarrow 22-10

#165 or #166 or #167 at A



if $\deg(E) = 7 \rightarrow 18-12$

if one of ## 226, ..., 230.1 at E \rightarrow 25-1

Class check list for (1j)

S is #004, 007, or 008 \rightarrow CTS #05

Class check list for (1k)



S is #005 → CTS #06



Class check list for (1l)



$\left\{ \begin{array}{l} S \text{ is } \#002, 003, \text{ or } 006 \rightarrow \tau=10 \text{ by Lemma (5.7.66)} \\ \text{if } S \text{ is } \#002 \text{ or } 003 \rightarrow \text{CTS } \#04 \\ \text{if } S \text{ is } \#006 \rightarrow q_{T_S}(V_S) = 0 \end{array} \right.$

Class check list for (2a)

#011 or #012 or #021 at A
and S of Type m-U at E



Table 1	Page 1
16-1	16-1
16-1	
25-1	

Table 1	Page 2
25-1	
	16-1
25-1	
	→ 26-2 26-2
	→ 26-9, 51-17, 51-2, 51-6, 51-8

Table 1	Page 3
22-1	

Table 1	Page 4
36-15	
	→ 58-13
	→ 69-2, 58-11, 58-22

Class check list for (A), continued

*011, 012, or 021 at A, continued

Table Page 5	Table Page 6
35-1	
17-1 → → →	
17-1 17-2 I3-19 I3-21 47-15 47-1 16-7 16-5	26-1 26-3 → 52-24 52-15 52-20, 25-22 → 26-2 →

*011 at A and S of Type U-U at E



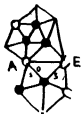
If the S-attachment attached at E is reflected then the corresponding entry is made in "Page 7r, 8r, or 9r". If S is non-reflected then the entry is in "Page 7n, 8n, or 9n".

Table Page 7 n	Table Page 7 r
22-25	17-1 1-1 1-1 17-2 I3-19 ~ ~ ~ 26-1 26-1 17-1 I3-19, I3-29, I3-19, C2a#1

Table Page 8 n	Table Page 8 r
C2a#1	C2a#1 ~ I3-29 I3-29 I3-29 1-1 26-1 → → → 1-1

The entry ~ means that the S-attachment cannot be attached because it contains a vertex specified \bar{U} (see Fig.4).

Table Page 9 n	Table Page 9 r
~ 51-21 → → 63-9	1-1 26-3, 52-20 7-1 1-1 52-20 ~ 26-2 → 63-9 22-35 56-25 (C2a#1)

Class check list for (2a), continued²#012 at A and S of Type U-U at E

- $$\left\{ \begin{array}{l} \text{if } \deg(E) = 7 \rightarrow 16-2 \\ \text{if } \#317, \text{ or } 318 \text{ at } E \rightarrow 51-21 \\ \text{if } \#319r, 320r, \text{ or } 321r \text{ at } E \rightarrow 26-2 \end{array} \right.$$

#021 at A and S of Type U-U at E

Table Page 7 π	Table Page 7 τ
22-25	17-1 17-1 \rightarrow 17-2 I3-19 ~ ~ ~ 26-1 26-1 17-1 I3-19 I3-29 I3-19 (2a#3)
Table Page 8 π	Table Page 8 τ
22a#3	(2a#3) ~ I3-29 I3-29 I3-29 26-1 \rightarrow 26-3
Table Page 9 π	Table Page 9 τ
51-21 \rightarrow 63-9 ~ 50-1	26-3 \rightarrow 52-28 52-28 52-45 \rightarrow ~ (2a#3) \rightarrow 26-2 \rightarrow 63-9 22-35 56-22 (2a#3)

Class check list for (2a), continued

one of $** 013, \dots, 016, 022, 151, 165, \dots, 167, 232n, \dots, 237n,$
 $248r, 249g$ at A and S of Type $m-U$ at E



Table	Page
	16-12
→	16-12 I3-7
	18-14
	18-14

Table	Page
	23-2
	23-4
	I3-7
	($\mu=2$)
	18-14 18-16

Table	Page
	24-12 23-3
23-3	→ 28-2 23-4
	→ 24-2
	→ 53-5
53-5	→ 24-2
→	28-2 ($\mu=2$) 23-10
	→ 23-8 15 16 17 1-2

Table	Page
	1-3 1-3 2-2
52-6	52-6 23-2

Table	Page
	35-5
16-12	
16-12	→
	16-12
16-12	→

Table	Page
	16-12
	→ 16-13 I3-8
I3-9	→ I3-8

Table	Page
23-2	→ 23-3
	23-3

Class check list for (2a), continued⁴

one of ##013, ,016,022 at A
and S of Type U-U, except #26ln, at E

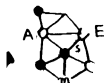


Table	Page	r	Table	Page	r
16-12	16-12	16-12	16-12		
	17-10				
17-10		16-12	17-13		
	26-5	16-12	16-12		16-12 17-10
exc. 17-13			16-12		
Table	Page	r	Table	Page	r
16-12	I3-6	I3-6			
I3-6	46-32	17-10			16-12
17-10		46-25			
	46 24 54-2	16-12	I4-6		16-12
17x10					17-10 I3 6
26 15		16 12			
Table	Page	r	Table	Page	r
26-14		53-2			
53-7					
	26-5				
	26-5				
			26-5		

one of ##013, ..., 016 at A and #26ln at E

→ C2a #1

#022 at A' and #26ln at E

→ C2a #5

Class check list for (2a), continued⁵

#151 at A and S of Type U-U at E

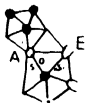


Table	Page	r
16-12	-	16-12
16-13	-	
16-13	-	16-12 16-15
		16-12
23-18	-	
(2a#13) 16-15	→	16-12

Table	Page	r
16-12	→	1-3 2-2
2-2	1-2	
		16-12 I3-11

Table	Page	r
16-12	I3-11	I3-11
I3-11	46-42	→ 16-13
16-13	→	47-26
	1-2	16-12 I1-33
16-13	-	→
23-19	-	23-4

Table	Page	r
		1-2
1-2	1-3 2-2	1-2 1-2
	2-2 1-2	I3-11 →

Table	Page	r
23-4	→	30-19
23-12	→	
		23-18 →
1-3	1-3 2-2	2-2
23-18	→	

Table	Page	r
1-3	2-2 2-2	1-3

one of ## 165, 166, 167 at A

and S of Type U-U, at E



Table	Page	r
(no SO at E)		
16-13	→	16-12 16-15
		16-12 16-12
23-1	-	
(2a#16) 16-15	→	

Table	Page	r
		16-12 16-13

Class check list for (2a), continued⁶

165, 167 at A, finished

Table	Page	n
16-12	I3-10	I3-10
I3-10	C2a #12 46-42	16-13
16-13	→ 46-27	→
→ 46-26	54-3	16-12 I3-25
16-13	→	→
23-6	→	23-4

Table	Page	8 r
16-12	→	16-12
→	I3-10	→

Table	Page	9 n
23-4	→	23-26
23-26	53-9	→
→	23-1	→
→	23-1	→

Table	Page	9 r
23-1	→	→

Class check list for (2a), continued⁷* 023 at A

<p>Table Page 1</p> <p>I3-7 → I4-3</p> <p>I3-13</p> <p>I3-13</p>	<p>Table Page 2</p> <p>I4-21</p> <p>I4-3 → I3-13</p>
<p>Table Page 3</p> <p>I4-21</p> <p>26-16</p> <p>I5-15 I5-15 52-N</p>	<p>Table Page 4</p> <p>I2-29 → 52-2 I4-16 26-4</p>
<p>Table Page 5</p> <p>I3-15</p> <p>I3-7 → I3-7</p> <p>I3-7</p>	<p>Table Page 6</p> <p>I3-7 → I4-3</p>
<p>Table Page 7</p> <p>I7-10 → I3-7 I7-13</p> <p>I3-7 I3-7</p> <p>26-4</p> <p>C2a #5 I4-13 → I3-7</p>	<p>Table Page 7</p> <p>26-4 → I4-29</p> <p>I4-29</p> <p>I3-7 I7-10</p>

Class check list for (A), continuedⁿ

*023 at A, finished

Table Page 8n		
I3-7	I4-3	I4-3
I4-3	C2a #12 46-31	17-10
17-10	→ 46-25	
→ 46-24 54-2	I3-7	I4-6
17-10		
26-15		→ 26-14

Table Page 8r	
I3-7	I3-7
	→ I4-3

Table Page 9n	
26-14	→ I2-20 53-2
53-7	→
	I4-29 →
I4-29	I4-29 →
26-4	→

Table Page 9r	
26-4	→

one of **025, 233r, 238, 251_n at Aand S of Type $m \in U$ at E

Table Page 1	
48-7	→ 48-7
→	


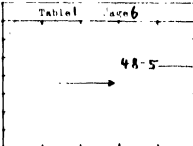
Table Page 2	
(M=1)	48-7

Table Page 3	
X	

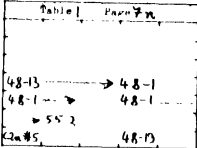
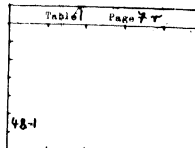
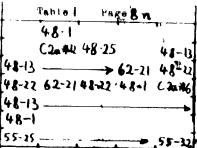
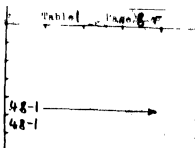
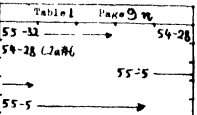
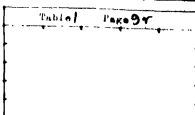
Table Page 4	
55-1 55-22	→ 2-9

Class check list for (2a), continued

#025, 233r, 238n, 251 at A, continued

Table Page 5	Table Page 6
	

#025 at A and S of Type U-U at E^o

Table Page 7n	Table Page 7r
 <p>48-13 → 48-1 48-1 → 48-1 ↳ 55-2 (2a) #5, 48-13</p>	 <p>48-1</p>
Table Page 8n	Table Page 8r
 <p>48-1 (2a) #4 48-25 48-13 48-13 → 62-21 48-22 48-22 62-21 48-22 48-1 (2a) #6 48-13 → 48-1 → 55-25 → 55-32</p>	 <p>48-1 → 48-1</p>
Table Page 9n	Table Page 9r
 <p>53-32 → 54-28 54-28 (2a) #6 → 55-5 → 55-5 →</p>	 <p>→</p>

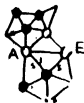
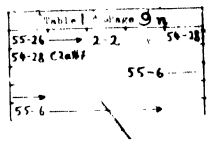
Class check list for (A), continued¹⁰*026 or *029 at A

Table 1	Page 1	Table 1	Page 2
2-2 48-6	2-2 48-6 48-6		48-6
	55-22 2-2 2-2		2-2 2-2 ³⁻²⁶
48-10 48-2 55-22 C2a#5	48-2 48-2 C2a#7		3-26
48-2 C2a#12	48-10 62-23 48-23 48-23 62-23 2-2 48-2 C2a#4		
48-10 48-2 55-21	48-10 62-23 48-23 48-2 55-21		2-2

Class Book List for (2A), continued 11

* # 026, 029 at A, finished



Classy check lists for (2a) continued

#027 or 028 at A



Table Page 1	Table Page 2
<p>2-1, 2-1</p> <p>2-2</p> <p>48-3</p>	<p>48-3 →</p>
Table Page 4	Table Page 6
<p>55-7 2-1 2-1</p> <p>2-1</p> <p>2-1</p>	<p>2-1</p> <p>2-2, 2-1</p>
Table Page 7 r	Table Page 7 r
<p>48-10</p> <p>48-2 →</p> <p>→ 55-7</p> <p>C2mS</p>	<p>48-2</p> <p>48-2 →</p> <p>2-2</p>
Table Page 8 r	Table Page 8 r
<p>48-2</p> <p>C2mS</p> <p>48-10 → 62-22 48-2</p> <p>48-23 62-22 2-1 48-2 C2mS</p> <p>48-10 →</p> <p>48-2</p> <p>55-29 → 55-26</p>	<p>2-1 2-1</p> <p>48-2</p>
Table Page 9 r	
<p>55-26 → 2-1 54-29</p> <p>54-29 51-23</p> <p>55-7 →</p> <p>→</p> <p>55-7 →</p>	

Class check list for (2a), continued¹⁴

*032 at A, finished

Table	Page 3
44-3	

Table	Page 4
45-11	
→	1-1 1-1
45-16 1-1 1-1	C2a#7

Table	Page 5
45-21	
25-1 1-1 1-1	
25-1 25-2 I4-24 → 54-5	
53-25 25-6 25-2	

Table	Page 6
43-1 1-1 43-1 →	
1-1 1-1 1-1 1-1	
61-22 43-35 → 44-4 →	

Page 7 r
43-10

Table	Page 7 r
1-1 1-1 25-2 I4-24	
54-5 53-25 C2a#2	
43-1 →	
25-1 I4-24 C2a#10 I4-24	

Table	Page 8 r (exc. 82a)
C2a#9 → C2a#10	
I2a#10 C2a#10	
1-1 43-1 → 1-1	

Table	Page 9 r
C2a#10	
61-21 →	
61-19	

Table	Page 9 r r
1-1 44-6 61-26 1-1	
1-1 61-26 (C2a#10)	
44-4 →	
→ (61-19) 44-29 C2a#10 →	

Class check list for (2a), continued

15

*033 at A

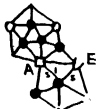


Table Page	Table Page
25-1	25-1
2-1 2-1	2-1 2-1
	2-1 → 44-1 →
	44-9 61-14 61-21 63-16

Table Page	Table Page
44-3	
	2-1 2-1
	2-1 →
	2-1 2-1

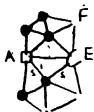
Table Page	Table Page
45-21	
25-1	
25-1 25-2 I4-24 →	2-1 2-1 →
53-25 25-6 25-2	2-1 → 44-4 →

Table Page	Table Page	Table Page
43-10	25-2 I4-24	C2a#10 → C2a#10
	53-25 C2a#2	C2a#10 C2a#10
	43-1 →	
	2-1 I4-24 C2a#10 I4-24	2-1 →

Table Page	Table Page
2-1	2-1 2-1
61-21 →	2-1 (2-1)
63-16	44-4
	→ (63-16) 44-29 C2a#10 →

Class check list for (2a), continued¹⁶

one of ## 034, 035, 036 at A



if $\deg(F) = 5 \rightarrow 1-1$

Table 1 Page 1	Table 1 Page 2
25-1	25-1 43-18 61-7 \rightarrow 44-4 1-20
Table 1 Page 3	Table 1 Page 5
44-3	25-2 I ₄ -24 \rightarrow 54-5 54-5 25-6 25-2
Table 1 Page 6	Table 1 Page 7 n
44-9 \rightarrow	44-22
Table 1 Page 7 r	Table 1 Page 8 r
54-5 \rightarrow C ₂ a#2 I ₄ -24 (C ₂ a#10, I ₄ -24)	C ₂ a#10 \rightarrow C ₂ a#10 C ₂ a#10 C ₂ a#10

only if #034 or 035 at A
(if #036 at A then
#24 & r cannot be
at E)

Class check list for (2a), continued¹⁸

#037 or 040 at A, finished

Table Page 7 n	Table Page 7 r
24-8 → 23-2 23-12 23-2 23-2 44-5 C2a#5 23-12 →	1-6 2-6 2-6 1-6 2-6 2-6 23-2 24-8

Table Page 8 n	Table Page 8 r
23-2 I2-3 I2-3 C2a#12 24-8 24-8 → 54-2 → 1-3 23-2 C2a#11 24-8 → 44-10 → 44-24	1-3 1-3 1-6 2-6 1-3 1-3 1-6 2-6 or 1-3 I2-3 →

Table Page 9 n	Table Page 9 r
44-24 → 44-24 44-24 C2a#11 44-5 → 44-5 →	1-6 2-6 2-6 1-6

#038 or 039 at A



Table Page 1	Table Page 2
23-2 I4-14 26-4	2-6 19-3 19-3 2-6 2-2 I4-14 26-4

Class check list for (2a), continued¹⁹#038 or 039 at A,
finished

Table	Page 3
	2-6 2-6
19-3 →	44-5 2-2 2-2
2-6 →	19-3 2-2
	→ 2-6
19-3 →	2-2 2-2
2-2 44-8	I4-14
	→

Table	Page 4
	2-2 →
2-2	44-5

Table	Page 5
	2-6 19-3 19-3 2-6
19-3 →	
	23-2
23-2 2-2 2-2 2-6 19-3	

Table	Page 6
2-2 2-2	19-3 2-2
23-2 →	I4-14 →
	I4-14 →

Table	Page 7 n
24 8	→ 23 2 23-12
	23-2 23-2
44-5	
C2a#5 23-12	→

Table	Page 7 r
2-6 19-3 19-3 2-6 19-3	
	19-3
	23-2 24-8

Table	Page 8 n
23-2	I4-14 I4-14
	C2a#12 24-8
24-8 →	54-2 - -
	→ 2-2 23-2 C2a#11
24-8 →	
44-10 →	44-24

Table	Page 8 r
	2-2
2-2 2-6 19-3 2-2 2-2	
	19-3 2-2 I4-14 →

Table	Page 9 n
44-24 →	44-24
44-24 C2a#11	
	44-5
→	44-5
	→

Table	Page 9 r
2-6 19-3 19-3 2-6	

class check list for (2a) continued²⁰

*041 at A



Table	Page 1	Table	Page 2
	24-2 I4-30 26-22		1-3 2-2 2-2 1-3 1-2 I4-30 26-22
Table	Page 3	Table	Page 4
	1-3 1-3 2-2 2-2 43-20 1-2 → 1-3 2-2 1-2 → 2-2 → 1-3 2-2 → 1-2 → 43-20 I4 30 → 1-2, 1-2		1-2 44-28 43-20
Table	Page 5	Table	Page 6
	1-3 2-2 2-2 1-3 2-2 2-2 24-2, 1-2, 1-2, 1-3, 2-2		1-2 1-2 2-2 1-2 24-2 → I4-30 → → I4-30
Table	Page 7n	Table	Page 7r
	24-7 → 24-2 24-25 24-2 24-2 44-18 24-25, 24-25, I4-30		1-3 2-2 2-2 1-3 2-2 2-2 24-2 I4-30

Class check list for (2a), continued 21

*041 at A, finished

Table	Page	8	π
24-2	I4-30	I4-30	
I4-30 C2a#12		24-7	
24-7	→	54-4	
	→	1-2 24-2 C2a#11	
24-7	→		
8-32	→	8-31	

Table	Page	8	τ
			1-2
1-2	1-3	2-2	1-2 1-2
	2-2	1-2	I4-30 →

Table	Page	9	π
8-31	→	30-19	
25-22	→		
		44-18	
→		1-3 2-2 2-2	
44-18	→		

Table	Page	9	τ
1-3	2-2	2-2	1-3

Class check list for (2a), continued²²#161 or #231_n at A and S of Type m-U at E

Table	Page	Table	Page 2
	17-1		17-1
	17-1		25-1 → 1-1 1-1
	25-1 2-1 1-1 1-1		25-1 → 25-3 →
			22-7 50-1 51-17 51-21 51-17
Table	Page 3	Table	Page 4
	24-1		
			35-1 1-1 35-1 → 2-1
			35-1 → 1-1 1-1
			35-4 1-1 1-1 59-3
Table	Page 5	Table	Page 6
	36-15		
	16-1 1-1 1-1		
	16-1 16-5 I3-21 I3-19 46-2		22-1 1-1 22-1 → 2-1
	47-15 18-7 17-2		1-1 1-1 1-1 1-1
			52-2a 53-10 → 22-3 →

#161 at A and S of Type U-U at E



Table	Page 7 _n	Table	Page 7 _r
			1-1 1-1 14-5 I3-21
			~ ~ ~
	22-25		22-1 →
			16-1 I3-21 I3-29 I3-21

Class check list for (2a), continued²³

*161 at E, finished

Table Page 8n	Table Page 8r
C2a#15	C2a#14 ~ I3-29 I3-29 I3-29 (C2a#15)
	1-1 22-1 → 2-1, 1-1
Table Page 9n	Table Page 9r
51-6 ~ 51-32 →	1-1 22-5 52-22 1-1 1-1 52-20 ~ 22-3 — → (51-32) 22-34 56-25 C2a##

one of ## 162, 163, 164, 241n, 242n, 243n at Aand S of Type m-U at E

Table Page 1	Table Page 2
17-1 1-1 1-1 1-1	17-1 1-1 → 1-1 → 22-10 → 22-7, 50-1 → 51-17
Table Page 3	Table Page 4
26-1	1-1 → 1-1 →

Class check list for (2a), continued²⁴

162, ..., 164, 24h, ..., 243n at A, m-U at E, finished

Table Page 5	Table Page 6
1-1	
1-1 →	
1-1 + 16-2 → I3-B 46-2	1-1 →
47-15 18-7 17-2	1-1 1-1 1-1 1-1
	1-1 → 22-10 →

one of ##162, 163, 164 at A and S of Type U-U at E



Table Page 7n	Table Page 7r
22-25	1-1 1-1 16-2 →
	1-1 1-1
	1-1 16-2 → 2 →
Table Page 8n	Table Page 8r
(2a) #15	(2a) #14 ~ I3-29 I3-29
	I3-29 (2a) #15
	1-1 → 1-1
Table Page 9n	Table Page 9r
51-6 → ~	1-1 1-1 →
50-2	→ ~ 22-10 →
	→ (50-2) 22-34 56-21 (2a) #14

Class check list for (2a), continued²⁵⁺*231r at A

Table	Page
	16-12
→	16-12 I3-10 48-5
48-2	→

Table	Page
	24-1
→	I3-10 (2a#17) 19-11 (2a#19)

Table	Page
	24-1
→	
24-1	→
→	23-10
→	23-8 I5-16 1-2 1-2

Table	Page
	1-3 1-3 2-2
52-6	→ 29-24 55-7
	→ (2a#18)
61-6	

Table	Page
	35+5
16-11	→
	16-12
16-12	→
16-12	→

Table	Page
16-12	→ I3-10
	→ 48-5 48-2
48-2	→ 55-11

Table	Page
23-2	→ 23-3
	23-3

Class check list for (2a), continued²⁶#234 r at A

Table	Page	Table	Page
		Table 1	Page 2
		24-1	
		→	
		16-12	
		→	
		I3-10 C2a#17 19-23 C2a#19	→
		→	
		16-12 I3-10	48-5
		48-2	→
		Table 1	Page 3
		24-1	
		24-1	→
		→	23-10
		→	24-5 I5-16 1-2 1-2
		Table 1	Page 4
		1-3 1-3 2-2	→
		52-6	→ 29-29 55-22
			→ C2a#8
		1-1	
		Table 1	Page 5
		35-5	→
		16-12	
			16-12
		16-12	→
		16-12	→
		Table 1	Page 6
		16-12	
		→	I3-10
		→	48-5 48-2
		48-2	→ 1-1
		Table 1	Page 7
		23-2	→ 23-3
			23-3

Class check list for (2a), continued 27

#235+ at A

Table Page 1	
	16-12
→ 16-12 I3-10	48-5
48-2 →	

Table Page 2	
	24-1
→	I3-10 C2a#7 49-19 C2a#19 →

Table Page 3	
	24-1
24-1	
→	23-10
→ 23-8 I5-16 1-2 1-2	

Table Page 4	
1-3 1-3 2-2	→
52-6	→ C2a#20 55-22
	→ C2a#18
1-1	

Table Page 5	
35-5	→
16-12	
	16-12
16-12 →	
16-12	→

Table Page 6	
16-12	
	→ I3-10
	→ 48-5 48-2
48-2	→ 1-1

Table Page 7	
23-2	→ 23-3
	23-3

Class check list for (2a), continued 28

236r at A

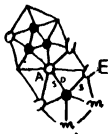


Table Page 1	Table Page 2
48-2 \xrightarrow{f} 48-5	C2a #7-9-29 C2a #7 \rightarrow
Table Page 3	Table Page 4
	C2a #20, 25-22 \rightarrow 2-9
Table Page 5	Table Page 6
	48-2 \rightarrow 48-5 48-2
Table Page 7	

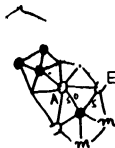
Class check list for (2a), continued#237r at A

Table	Page
	16-13
→	16-13 I 3-15 48-15
	48-14 48-16 → 48-14

Table	Page
	24-21
→	I 3-15 (2a#17) 19-22 (2a#18)

Table	Page
	24-21
	24-21
	24-21
→	24-31
→	I 5-17 1-21

Table	Page
1-22	→ 6-34
25-27	→ 29-28 55-6
55-6	→ (2a#18)

Table	Page
	35-8
16-13	
16-13	→ 16-13
16-13	→

Table	Page
16-13	→ I 3-15
	→ 48-15 48-14
48-16 48-14	→

Table	Page
23-5	→ 23-7
	23-7

Class check list for (2a), continued³⁰#24_n at A

Table Page 2
17-2
25-2 _____
→ C2a#21 →

Table Page 3
28-1

Table Page 4
C2a#21 _____
→

Table Page 5
36-16
16-5 C2a#22 → 13-24 C2a#22
C2a#22 C2a#22 18-21

Table Page 6
C2a#22 _____
→ C2a#22 →

Class check list for (2a), continued⁵¹

#245n at A



Table 1 Page 2
I3-19
I4-24 → C2a#21

Table 1 Page 3
I4-25

Table 1 Page 4
C2a#21

Table 1 Page 5
I5-27
I3-21 C2a#25 → C2a#3 46 13
C2a#25 I3 22 I3 24

Table 4 Page 6
I4-26
22-13 → 52-30 C2a#25
C2a#25 C2a#25

Class check list for (2a), continued⁵²#246_n at A

(if $\deg(E)=7$
then $\deg(D)=6$)

Table Page 2	Table Page 3
$54-5 \xrightarrow{\hspace{2cm}}$ $54-5 \xrightarrow{\hspace{1cm}} C2a\#21$	53-12
Table Page 4	Table Page 5
$C2a\#21 \xrightarrow{\hspace{2cm}}$ $\dots \xrightarrow{\hspace{2cm}}$	14-21 $(\sim) C2a\#22 \rightarrow C2a\#23, C2a\#22$ $C2a\#22 \quad C2a\#22, 47-16$
Table Page 6	
$C2a\#22 \xrightarrow{\hspace{2cm}}$ $\xrightarrow{\hspace{2cm}} C2a\#22 \xrightarrow{\hspace{2cm}}$	

Class check list for (2a), continued 53

#247_n at A

(if $\deg(E)=7$
then $\deg(D)=6$)

Table Page 2	Table Page 3
<p>53-25 →</p> <p>53-25 → C2a#21 →</p>	<p>53-20</p>
Table Page 4	Table Page 5
<p>C2a#21 →</p>	<p>59-15</p> <p>(~) C2a#22 → C2a#21, C2a#22</p> <p>C2a#21 → C2a#22 47-4</p>
Table Page 6	
<p>C2a#22 →</p> <p>→ C2a#22 →</p>	

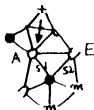
Class check list for (2a), continued⁵⁴#250_n at A

Table	Page	Table	Page
17-10	17-10	I4-28 → C2a#21 → I4-28 C2a#21 → I4-28 C2a#21	3
C2a#21 C2a#21 I4-16 I4-28		C2a#21	5
16 13		16 13	
16 13 → C2a#22 → I4-3		C2a#21 C2a#22	7

Class check list for (2a), continued 35

* 252 at A



Table	Page 2
26-1	
43-1	44-3 →
44-3	→ C2a#21
_____ →	

Table	Page 3
43-13	

Table	Page 4
C2a#21 ..	
_____ →	

Table	Page 5
45-21	
22-1	22-2 I4-26 I4-25 54-6
53-35	28-5 28-1

Table	Page 6
43-1 _____ →	
1-1	1-1 1-1 1-1
61-23	43-4 .. →

Class check list for (2a), finished

#253_n at A



Table	Page 2	Table	Page 3
	26-1 43-1 C2a#24 → C2a#21	43-13	
Table	Page 4	Table	Page 5
C2a#21		45-21 22-1 22-2 I4-26 I4-25 54-6 53 35 28-5 28-1	
Table	Page 6		
43-1 1-1 1-1 1-1 1-1 61-23 43-4			

Class check list for (2aa)#265r or 266r at E and $\deg(C)=5$ 

$\left\{ \begin{array}{l} \text{if } \deg(D)=7 \rightarrow 18-16 \\ \text{if one of } \#\#079, \dots, 083, 102, 118 \text{ at } D \rightarrow 54-8 \\ \text{if } \#\#17 \text{ at } D \rightarrow 11-24 \end{array} \right.$

#265r or 266r at E and $\deg(C)=6$ 

$\rightarrow \deg(D)=7 \rightarrow 18-17$

(no S with $\deg(D) \geq 8$ can be at D by Lemma 3')

#274 at E and $\deg(C)=5$ 

if $\deg(D)=7$
 $\rightarrow 46-2$

Table Page 2	Table Page 3
54-5	54-6
Table Page 5	
55-9	

#274 at E and $\deg(C)=6$ 

$\rightarrow \deg(D)=7 \rightarrow 46-13$

(no S with $\deg(D) \geq 8$ can be at D by Lemma 3')

Class check list for (2aa), finished

one of ## 314r, ..., 318r at E and $\deg(C)=5$



if $\deg(D)=7$
 $\rightarrow 50-1$

Table 1	Page 2	Table 1	Page 3
r		61-11	
61-8			

Table 1	Page 5
61-32	

one of ## 314r, ..., 318r at E and $\deg(C)=6$



$\rightarrow \deg(D)=7 \rightarrow 50-13$

* 325r at E and $\deg(C)=5$ *



if $\deg(D)=7 \rightarrow 33-1$

if S is one of ## 079, 080, ..., 083, 102, 108 $\rightarrow 43A31$

* 325r at E and $\deg(C)=6$



$\rightarrow \deg(D)=7 \rightarrow 33-3$

Class check list for (2ac)

$$\deg(C) = 5$$



Table 1	Page 2
25-1	→
25-1	→

Table 1	Page 3
26-1	

if $\deg(D) = 7$
 $\rightarrow 17-1$

Table 1	Page 5
36-1	

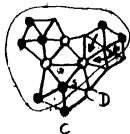
$$\deg(C) = 6$$



$\rightarrow \deg(D) = 7 \rightarrow 17-3$

Class check list for (2ad)

$$\#285_n \text{ at } E \text{ and } \deg(C) = 5$$



$\rightarrow 48-21$

or



if $\deg(D) = 7 \rightarrow 17-11$

if one of $\#0, 9, \dots, 283,$

$102, 118$ at $D \rightarrow 33-21$

if $\#117$ at $D \rightarrow 14-16$

$$\#285_n \text{ at } E \text{ and } \deg(C) = 6$$



$\rightarrow \deg(D) = 7 \rightarrow 14-5$

Class check list for (2ad), finished

*312_n at E and deg(c)=5



if $\deg(D) = 7 \rightarrow 50-10$

if one of #061, ..., 068 at D $\rightarrow 61-10$

if #076 $\rightarrow 61-18$

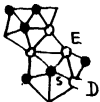
*312_n at E and deg(c)=6



$\rightarrow \deg(D) = 7 \rightarrow 52-18.$

Class check list for (2ae)

*264_n at E



$\rightarrow \deg(D) = 7 \rightarrow 62-20$

*285_n at E



$\rightarrow \deg(D) = 7 \rightarrow 14-5$

*312_n at E.



$\rightarrow \deg(D) = 7 \rightarrow 52-18$

Class check list for (2af)*264_n at E→ $\text{deg}(D) = 7 \rightarrow 62-19$ *285_n at E→ $\text{deg}(D) = 7 \rightarrow I4-5$ Class check list for (2ag)*263_r, 268_r, 270_r, or 271_r at E

if one of ##181, 191, 192 at D → I3-12

if #198 at D → I4-4

*267_r at E

→ *199 at D → 48-5

*274 at E→ $\text{deg}(D) = 7 \rightarrow 54-21$ *313 at E→ $\text{deg}(D) = 7 \rightarrow 61-12$

Class check list for (2ag), continued

* 324_r or 325_r at E



$$\rightarrow \deg(D) = 7 \rightarrow 33-3$$

Class check list for (2ah)

* 285_n at E



$$\rightarrow \deg(D) = 7 \rightarrow 14-5$$



* 312_n at E

$$\rightarrow \deg(D) = 7 \rightarrow 52-18$$

Class check list for (2ai)

$$\text{if } \deg(D) = 7 \rightarrow 46-23$$

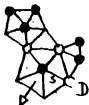


Table 1		Page 6	
22-1	→		
1-1	1-1	1-1	1-1
52-20	→ 23-1		

Class check list for (2aj)*266r at E

if $\deg(D) = 7 \rightarrow 46-21$

if one of ## 226, ..., 229 at D $\rightarrow 23-2$

if #230 or 230.1 at D $\rightarrow 23-3$

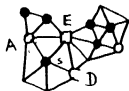
325r at E

Table Page 5	
23-3 \rightarrow	23-3
23-3 \rightarrow	

Table Page 6	
23-3 \rightarrow	23-3 \rightarrow
\rightarrow	\rightarrow I4-14 \rightarrow
I4-14 \rightarrow	

Table Page 7	
43-2 \rightarrow	
	43-2

Class check list for (2ak)#161 at A

if $\deg(D) = 7 \rightarrow 46-20$

Table Page 6	
S4-24 \rightarrow	
\rightarrow	S3-22 \rightarrow

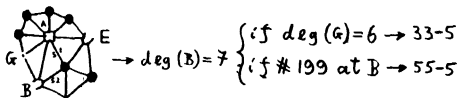
Class check list for (2ak), continuedone of ## 162, 163, 164 at Aif $\deg(D) = 7 \rightarrow 46-20$ if one of ## 211, ... 221 at D $\rightarrow 54-26$ if # 224 or 225 at D $\rightarrow 53-21$ Class check list for (2al)if $\deg(D) = 7 \rightarrow 46-22$ 

Table		Page 6	
22-1	1-1	22-1	\rightarrow 2-1
1-1	1-1		1-1 1-1
51-20			22-4 \rightarrow

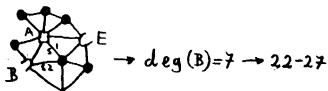
Class check list for (2am)one of ## 244_n, 246_n, 247_n, 250_n at A
 $\rightarrow \deg(B) = 7 \begin{cases} \text{if } \deg(G) = 6 \rightarrow 18-17 \\ \text{if } \# 199 \text{ at } B \rightarrow 48-5 \end{cases}$
245 at A $\rightarrow \deg(B) = 7 \rightarrow 13-27$

Class check list for (2am), finished

#252_n at A



#253_n at A



Class check list for (2am)

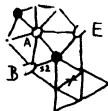


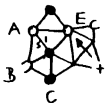
Table Page 5	
16-12	→

Table Page 6	
16-12	→
16-13	→ I3-8 1-9
1-9	→ I3-8 48-5 →
48-4 48-5	→ 55-11

Table Page 7	
23-2	→ 23-3
	23-3

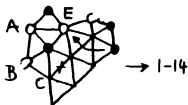
Class check list for (2a)

$$\underline{\deg(C) = 5}$$

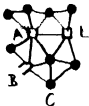


$$\left\{ \begin{array}{l} * 245_n \text{ at A} \rightarrow I3-23 \\ * 246_n \text{ at A} \rightarrow 47-18 \\ * 247_n \text{ at A} \rightarrow 47-5 \end{array} \right.$$

$$\underline{\deg(C) = 6}$$



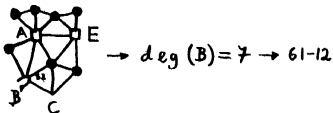
Class check list for (2ap)



$$\underline{\deg(C) = 5}$$

$$\rightarrow 43-30$$

$$\underline{\deg(C) = 6}$$



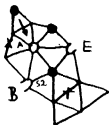
Class check list for (2aq)

Table	Page 5
16-15	→

Table	Page 6
16-15	→
→	16-25 I 4-8 1-9
1-9	→ I 2-2

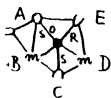
Table	Page 7
23-12	→ 23-12
	23-12

Class check list for (2ar)

- *172 or 173 at E → 16-4
- *176 at E → 46-13
- *220 or 221 at E → 52-24
- *224 or 225 at E → 22-12

Class check list for (2ba)

- { if one of ##174, 192, 198 at D → I2-2
 { if #179 at D → 3-15
 { if one of ##180, 191, 195, 196, 197, 230, 230.1 at D → 1-9

Class check list for (2c)

- { if one of ##011, ..., 016 at A
 → { if #001 at C → CTS #19
 { if #006 at C → CTS #22
 { if #151 at A → one of ##002, 003, 006 at C
 → 21-30

Class check list for (C2d#2)

- { if #161 at A and #161 at D → 20-32
 { otherwise → CTS #28

Class check list for (C2e#1)

- { if #021 or 022 at C → CTS #23
 { if #023 at C → I1-20
 { if #030 at C → CTS #23

Class check list for (C2e#2)

Table	Page
21-22	21-28
49-22	CTS#21
49-22	CTS#21

Class check list for (2f)



Table 1	Page 2	Table 1	Page 3
	I1-20 C25#1 C25#2 C25#2 ————— —————> C25#3 C25#2	C25#3 C25#4 C25#4 —————> C25#5 C25#5	C25#7
Table 1	Page 4	Table 1	Page 5
	C25#6		

Class check list for (2fa)

Table 1	Page 6
	48-2 48-5 48-4 48-5 —————> 55-11

Class check list for (2fb)

Table 1	Page 5	Table 1	Page 6
	57-2 ————— —————> 57-2 —————>	44-3 1-1 44-2 —————> 1-1 1-1 1-1 1-1 61-25 2-2 2-2 44-4 —————>	

Class check list for (2fc)

Table	Page 5	Table	Page 6
57-1	57-1	61-29	61-29, 2-2, 2-2, 43-45

Class check list for (2fd)

$\left\{ \begin{array}{l} \text{if } \deg(D)=7 \rightarrow 57-7 \\ \text{if one of } \#\# 226, \dots, 230.1 \text{ at } D \rightarrow 44-5 \end{array} \right.$

Class check list for (2fe)

$\left\{ \begin{array}{l} \text{if } \deg(D)=7 \rightarrow 57-6 \\ \text{if one of } \#\# 226, \dots, 230.1 \text{ at } D \rightarrow 43-14 \end{array} \right.$

Class check list for (2ff)

$\rightarrow \deg(D)=7 \rightarrow 55-2$

Class check list for (2fg)

Table	Page 5	Table	Page 6
60-21	60-21	61-33	61-33, 2-2, 2-2, 45-28

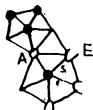
Class check list for (3a), finished# 151 at A

Table	Page	n	r
16-12	→	16-12	→
16-13			
16-13	→	16-12	16-15
		16-12	16-12
23-18			
C3a#3, 16-15	→		

Table	Page	r
16-12	→	1-3 2-2
2-2	1-2	
		16-12 I3-11

Table	Page	n
16-12	I3-11	I3-11
I3-11		16-13
16-13	→	47-26
	→	1-2 16-12 I1-33
16-13	→	
23-19	→	23-4

Table	Page	r
1-2, 1-3	2-2	1-2 1-2
2-2	1-2	I3-11

Table	Page	n
23-4	→	30-19
25-22	→	
		23-18
1-3	1-3	2-2 2-2
23-18	→	

Table	Page	r
1-3	2-2	2-2 1-3

Class check list for (4aa)

Sat C:

Table	Page	Table	Page
20-30 (3aa#1)	20-34 49-25 (3aa#1)	29 33 (3aa#2)	
(3aa#1)		29 32	
(3aa#2)	→ (3aa#2)		
(3aa#2)	→ 2-1		
2-2 29 30 (3aa#2)	29-33 →		

Class check list for (3aaa)

#021 at C

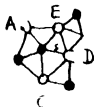


Table	Page	Table	Page
16-12			
17-1 → 16-12 16-15			
16-12			
26-1			
17-1 16-15 → 16-12			
Table	Page	Table	Page
16-12	13-8	16-14	
16-16			
26-1 → 23-26			
Table	Page	Table	Page
23-26 → 52-24			
52-15 52-15			
→ 23-3 →			

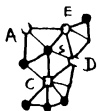
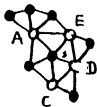
Class check list for (5aaa), finishedone ## 037, ..., 040 at C

Table Page 7n	Table Page 7r
16-12 16-13	16-12 → 16-12 16-13
	16-12
Table Page 8n	Table Page 8r
16-13	16-12
→ 23-2	→ 23-2 3-25
→ 16-12 3-25	
Table Page 9n	Table Page 9r
44-5 →	44-5 →

Class check list for (5aab)#021 at C

$$\begin{cases} \text{if } \deg(D) = 7 \rightarrow 62-3 \\ \text{if } \deg(D) = 8 \rightarrow 63-2 \end{cases}$$

Class check list for (4ab), continued

#022: at C

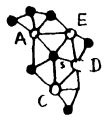


Table Page 7 r	Table Page 7 r
/	62-6 62-6 23-2 62-6
Table Page 8 r	Table Page 8 r
/	62-6 62-6 62-6 62-6 26-10 23-26
Table Page 9 r	Table Page 9 r
/	23-26 23-26 23-26 (d-f) 26-5 26 5

#023 at C



Table Page 7 r	Table Page 8 r
47-15	I3-8 I4-3 I4-3
47-15 → I3-8 17-13 I3-8	I4-3
53-20	
47-15, 17-13 →	53-20 26-16
Table Page 9 r	
26-14 → I2-20, 53-2	
53-7 (d=25)	
I4-29 →	

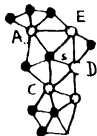
Class check list for (5ab), continued#025 at C

Table 1	Page 7 r
47-15	
47-15	→ 48-5
48-5	→
	53-20
47-15	48-19

Table 1	Page 8 r
	48-5
53-20	→ 54-28

Table 1	Page 9 r
54-28	→ 55-32
54-28 (d=25)	
	55-8
→	

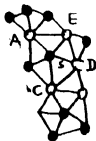
#026 or 029 at C

Table 1	Page 7 r
47-15	
47-15	→ 48-2
48-2	→
	53-20
47-15	48-20

Table 1	Page 8 r
	48-2
53-20	→ 54-28

Table 1	Page 9 r
54-28	→ 55-18
54-28 (d=25)	
	55-6
→	

Class check list for (saab), continued

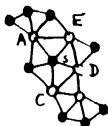
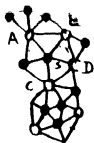
027 or 028 at C

Table	Page 7r	Table	Page 8r
47-15		48-2	
47-15	→ 48-2		
48-2	→		
53-20			
47-15	48-18	53-20	→ 54-29

Table	Page 9r
54-29	→ 2-1 54-29
54-29 (d=25)	
	55-f
→	

033 at C

- i) $\deg(D) - 1 \rightarrow 63-5$
- if # 253_n or # 313 at D → 2-1
- if # 253_r at D → 53-20
- if # 317_r or 318_r at D → 18-3
- if # 322 at D → 63-16

Class check list Cog. (Shab), finished

one of ##037, ..., 040 at C

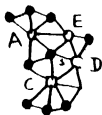


Table Page 7r	
47-15	
47-15	→ 23-2 23-2
	23-2
	53-20
47-15 23-12	→

Table Page 8r	
23-2	← 4-34
53-20	→ 44-24

Table Page 9r	
44-24	→ 44-24
44-24 (d-25)	
	43-2
→	43-2 →

Class check list for (Shab)

H021 at C



Table Page 7r	
53-31	
53-31	→
	53-31
	26-1
53-31	→ 53-31

Table Page 8r	
53-31	← 53-31
53-31	→ 53-31
26-1	→ 26-3

Table Page 9r	
26-3	→ 52-24
52-25 (d-25)	
	43-2
→	43-2 →

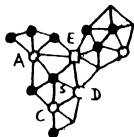
Class check list for (aaac), continued# 022 at C

Table	Page	Table	Page
23-3 16-12	23-3 +	23-3 23-3	23-3 16-12
	23-3		
Table	Page	Table	Page
16-12	16-12	23-3	23-3
	→ 23-3 I3-8	→ 16-12 I4-14	
Table	Page	Table	Page
43-2		43-2	

023 at C

Table	Page	Table	Page
23-3 I3-8	23-3	23-3 23-3	23-3
	23-3		I3-8

Class check list for (3aac), continued²

023 at C, cont.

Table	Page	n
I3-8	→	I3-8
	→	23-3 I4-3

Table	Page	r
23-3	→	23-3
	→	I3-8 I4-4

Table	Page	n
43-2	→	

Table	Page	r
43-2	→	

one of ##025, ..., 029 at C



Table	Page	r
23-3	→	
	→	23-3 23-7

Table	Page	n
23-7	→	

Table	Page	r
23-3	→	23-3
23-3	→	23-7 I4-4

Table	Page	r
55-2	→	

#033 at C



Table	Page 7n	Table	Page 8n
23-3		24-14	24-14
	23-3		
	23-3		
	2-1		
2-1	I4-24, 24-14	23-3	2-1, 2-1, 2-1

Table	Page 9n
(d=25)	
	43-2
→	43-2 →

one of ##037, ..., 040 at C

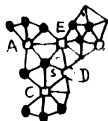


Table	Page 7n	Table	Page 7r
23-3	23-3 →	23-3	23-3 →
23-2		23-3	
	23-3		I4-14

Table	Page 8n	Table	Page 8r
	23-2		23-3
23-2	→ 23-3 I5-14	23-3	→ I4-14
		23-3	→ I4-14

Table	Page 9n	Table	Page 9r
43-2	→	43-2	→

Class check list for (3ab)*265r or 266r at E

Table	Page # r
16-12	16-12
16-B	
16-13	16-12 16-15
	16-12 16-12
23-2	

Table	Page # r
16-12	
	16-12 16-13

* 274 at E

Table	Page # r
	53-34

Table	Page # r
47-15	
47-15	47-16 15-32
62-15	62-14 C3ab
53-32	

* 325r at E

Table	Page # r
23-3	23-3
23-3	
23-7	23-3 23-12
	23-3 23-3
43-2	

Table	Page # r
23-3	
	23-3 23-7

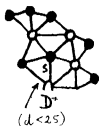
Class check list for (3aba)

Table	Page	Table	Page
		23-2	
	62-7	24-2	62-7
→	62-7 →		
2-2			
			2-1
Table	Page	Table	Page
		1-3	1-3
	24-2 23-3	2-2	
23-3 →	28-2 23-4	52-6 →	23-2
	→ 24-2		
→ (d=25)	24-2 (d=25)		
53-5 →	(d=25) 24-2		
(d=25) 28-2	23-10		
→	15-16 1-2 1-2		
Table	Page		
	35-2		

Class check list for (3aa)#013 at A

- { if #011 at C → 20-34
- { if one of ##012, ..., 018 at C → C3ac #1
- { if S1 at C → C3ac #2

#014 at A

- { if #011 at C → 49-25
- { if one of ##012, ..., 018 at C → C3ac #1
- { if S1 at C → C3ac #2

#015 or 016 at A

if S0 at C → C3ac #1

if S1 at C → C3ac #2

Class check list for (3a0a)

#021 at C



Table	Page	r
	51-17	

Table	Page	r
	22-1	

Table	Page	r
	47-15	

Table	Page	r
	~ 51-17	
	63-8	

#022 at C



Table	Page	r
	16-1	
	1-1	1-1
	22-1	
	16-1	17-13
		47-17 17-13

Table	Page	r
	47-17	47-20
	47-20	47-20
	1-1	22-1
		1-1

Table	Page	r
	1-1	1-1
	1-1	52-20
		51-30
		51-30

Class check list for (3aca), continued

#023 at C



Table		Page 7r	
16-1			
1-1	1-1	16-5	17-13
		~	
	22-1		
16-1	17-13	→	

Table		Page 8r	
47-17	I4-3		I43
I4-3			
1-1	22-1	→	1-1

Table		Page 9r	
1-1		I2-20	1-1
1-1	52-20		
		51-30	—
→	51-30	→	

#025 at C

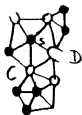


Table		Page 7r	
16-1			
1-1	1-1	48-5	
~	~		
	22-1		
16-1		48-19	

Table		Page 8r	
		~	
1-1	22-1	→	1-1

Table		Page 9r	
1-1		22-5	1-1
1-1	52-20		
		22-4	—
→			

Class check list for (3aca)₂ continued²

one of ##026, 028, 029 at C

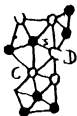


Table	Page	r
16-1		
1-1	1-1	16-5
~	~	
	22-1	
16-1		48-20

Table	Page	r
	~	
1-1	22-1	→ 1-1

Table	Page	r
1-1	22-5	1-1
1-1	52-20	
→	22-4	---

#027 at C

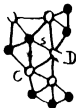


Table	Page	r
16-1		
1-1	1-1	48-2
~	~	
	22-1	
16-1		48-18

Table	Page	r
	~	
1-1	22-1	→ 1-1

Table	Page	r
1-1	22-5	1-1
1-1	52-20	
→	22-4	---

Class check list for (3ac), finished

#041 at C

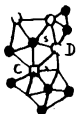


Table	Page	r
16-1		
1-1	1-1	16-5 53-30
	22-1	
16-1	53-30	→

Table	Page	r
53-30	53-30	53-30
53-30		
22-1		→ 1-1

Table	Page	r
1-1		1-1
1-1	52-20	
		44-18 →
→	44-18	→

Class check list for (3ad)

Table	Page	r
	22-25	

Table	Page	r
16-1		
1-1	1-1	16-5 13-21
~	~	~
22-1		→

Class check list for (3ae)

- { if #151 at C → C3ae #1
 { if #161 at C → 20-33
 { if one of ##162, ..., 167 at C → C3ae #2

Class check list for (3aea)one of ## 162, 163, 164 at C

$$\left\{ \begin{array}{l} \text{if } \deg(D) = 7 \rightarrow 47-1 \\ \text{if } \#253_n \text{ at } D \rightarrow 1-1 \\ \text{if } \#253_r \text{ at } D \rightarrow 22-1 \\ \text{if } \#322 \text{ at } D \rightarrow 50-2 \end{array} \right.$$

one of ## 165, 166, 167 at C

$$\text{if } \deg(D) = 7 \rightarrow 47-2$$

$$\text{if } \deg(D) = 8 \rightarrow$$

Table	Page 7 r
22-1	

Table	Page 8 r
1-1	22-1
→ 2-1, 1-1	

Table	Page 9 r
1-1	1-1
1-1	51-14
→ 23-1 →	

Class check list for (3b), continued³

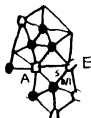
#034 or 035 at A



Table	Page γ
	44-22

Table	Page γ
1-1	
1-1	1-1 25-2 II 4-24
54-5	\rightarrow C3b#2
1-1	1-1

#036 at A



$\rightarrow \deg(E) = 7 \rightarrow 22-13$

one of ## 037, ..., 040 at A



Table	Page γ
23-2 \rightarrow	23-2 \rightarrow
23-5	
24-8 \rightarrow	23-2 23-12
	23-2 23-2
44-5	

Table	Page γ
23-2 \rightarrow	
\rightarrow	
	23-2 24-8

Class check list for (3bab) and (4bad)if not #285_n at D

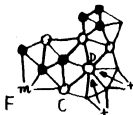
Table Page 7 _n	
48-5	48-5
→ 48-13	48-5
48-13	→ 48-5
48-5	→ 48-5
→ 55-5	
17-1	62-17

Table Page 7 _r	
	48-5
	48-5
	48-5

Table Page 8 _n	
	48-13
48-13	→ 17-3
→ 62-21	17-3 48-5 exc.
48-13	→
48-5	
55-25	→ 55-32

Table Page 8 _r	
48-5	→
48-5	

Table Page 9 _n	
55-32	→ 54-28
54-28	52-15
	26-2
→	
55-1	→

if #285_n at D

$$\left\{ \begin{array}{l} \text{if } \deg(F) = 5 \rightarrow I3-13 \\ \text{if } \deg(F) = 6 \rightarrow \left\{ \begin{array}{l} \text{if } \#022 \text{ at } C \rightarrow I3-8 \\ \text{if } \#023 \text{ at } C \rightarrow I4-3 \end{array} \right. \end{array} \right.$$

Class check list for (3bb)#249_n at E

Table 1 Page 7 _n	
16-12 →	16-12 →
16-13	
16-13 →	16-12 16-15
	16-12 16-12
23-1	

Table 1 Page 7 _r	
16-12 →	
→	
	16-12 16-13

#251_n at E

Table 1 Page 7 _n	
48-5	48-5 →
→ 48-13	48-5
48-13 →	48-5
48-5 →	48-5 →
→ 55 5	

Table 1 Page 7 _r	
	48-5
48 5	

Class check list for (4bc)

{ if 50 at C → C3bc#1
 { if 51 at C → C3bc#2

one of ## 032, 034, 035, 036 at C

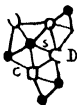


Table	Page	n
25-1		
1-1	1-1	16-12 16-15
		16-12 16-12
	44-3	
25-1	16-15	→

Table	Page	n
	E3-8	16-14
16-16		
1-1	43-2	→ 1-1

Table	Page	n
1-1		1-1
1-1	53-6	
		23-3 →
→	23-3	→

#041 at C



Table	Page	n
16-12	16-12	→
16-13		
		16-12

Table	Page	n
16-12	16-12	→
16-12		
		23-4

Table	Page	n
23-4	23-4	→
23-4	16-12	E3-25

Table	Page	n
16-12	16-12	→
	23-4	E3-25

Table	Page	n
23-2		→

Table	Page	n
23-2		→

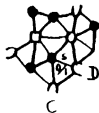
Class check list for (3bd)

Table	Page 7 n
16-12	→ 16-12 →
16-13	→
16-13	→ 16-12 16-15
	16-12 16-12
23-2	

Table	Page 7 r
16-12	→
	→
	16-12 16-13

Class check list for (3c)

one of ## 23_m, 23_n, 23_o, 23_p at E

if S2 of Type 5-U at A → C3c

if S2 of Type 6-U at A ↓



Table	Page 5
16-12	→

Table	Page 6
16-12	→ I3-10
	→ 48-5 48-2
48-2	→ 55-11

Table	Page 7
23-2	→ 23-3
	23-3

Class check list for (5c), continued#231r at E

Table Page 2	
17-1	
25-1	→ 1-1 1-1
25-1	→ → → 25-3 →
22-7	50-1 51-17 51-21 51-17

Table Page 3	
26-4	

Table Page 4	
35-1 1-1 35-1 → 2-1	
35-1	→ → → 1-1 1-1
35-4	1-1 1-1 59-3

Table Page 5	
36-15	
16-1	16-5 13-21 13-19 46-2
47-15	18-7 17-2

Table Page 6	
22-1	1-1 22-1 → 2-1
1-1	1-1 → 1-1 1-1
52-20	53-10 → 22-3 →

one of ##232r, ..., 237r at E

Table Page 2	
13-7	18-14

Table Page 3	
24-12 23-3	
23-3	→ 28-2 23-4 →
→ 24-2 →	
→ 53-5	
53-5	→ 24-2 →
→	28-2 23-10
→	23-8 15-16 1-2 1-2

Class check list for (30), continued²

*232r, ..., 237r at E, finished

Table	Page 4	Table	Page 5
1-3	1-3	2-2	
52-6	23-2	35-5	
		16-12	
Table	Page 6	Table	Page 7
16-12		23-2	23-3
	16-13	13-8	
13-9	13-8		23-3

→

#233_n or 238 at E

if $\deg(A)=7$ and $\deg(B)=5 \rightarrow 48-7$

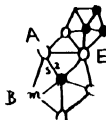


Table	Page 4	Table	Page 6
	55-1	55-12	
	2-9	48-5	

Class check list for (3e), finished#237_n at E

if S2 of Type 5-U at A → C3c

if S2 of Type 6-U at A ↘



Table	Page 5
[Empty]	
16-13	→

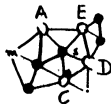
Table	Page 6
16-13	→
	→ I3-15
	→ 48-15 48-14
48-16 48-14	→

Table	Page 7
23-5	→ 23-7
	23-7

Class check list for (3ca)

{ if S0 at C → C3a #1

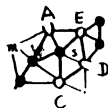
{ if S1 at C → C3a #2

Class check list for (3ca) (3aca)

(#030 or 031 at C)

Table	Page 7 _n
[X]	

Table	Page 7 _v
16-1	
1-1	1-1
~	~
	~
	16-5 17-13
	22-1
16-1, 17-13	→ I3-21

Class check list for (30aa) - (30ac), finished

(#030 or 031 at C)

Table	Page 8 η
X	

Table	Page 8 γ
16-14 ~	I3-13 I3-13
I3-13	47-15
1-1	22-1 → 1-1

Table	Page 9 η

Table	Page 9 γ
1-1	22-5 52-22 1-1
1-1	52-20
	22-4 →
→	28-21 →

Class check list for (30ab) - (30ac)

(#030 or 031 at C)

Table	Page 7 η
16-12	16-12 →
16-13	
	16-12

Table	Page 7 γ
16-12	
	16-12 16-13

Table	Page 8 η
16-13	16-13 → 18-14
	→ 16-12 I3-13
16-13	→

Table	Page 8 γ
16-12	16-12
16-12	16-13 I3-8

Table	Page 9 η
23-2	→

Table	Page 9 γ
23-2	→

Class check list for (job)# 23nat E

Table	Page	Yr
	22-25	

Table	Page	Yr
16-1		
1-1	1-1	16-5 [3-2]
~	~	~
22-1	→	

one of ## 234_{mp}, 23_{nat} E

Table	Page	Yr
16-12	→	16-12 →
16-13		
16-13	→	16-12 16-13
	16-12	16-12
23-2		

Table	Page	Yr
16-12	→	
		16-12 16-13

Class check list for (4a) and (4b)

* 231n, 234n, 235n, or 236n at A



Table	Page	n
16-12	→	48-5
		16-12, 16-13
48-5		

Table	Page	r
C4a	16-12	48-5 C4a
	→	48-5
C4b	→	16-15
C4b	→	16-12 C4b
	→	

* 231r at A



Table	Page	n
16-1		
1 1		16 5 13 21
~		~
22-1	→	

Table	Page	r
		22-25

The entry ~ means that

the S-situation cannot be attached since one of its vertices is \tilde{U} , see Figure 4.

* 232, 233r, ..., or 237r at A



Table	Page	n
16-12	→	
	→	
		16-12 16-13

Table	Page	r
16-12	→	16-12 →
16-12		
16-13	→	16-12 16-15
		16-12 16-13
23-2		

Class check list for (4a) and 4(b), finished

#.233n or 238 at A.



Table	Page	r
	48-5	
48-5		

Table	Page	r
48-5	48-5	
→ 48-13	48-5	
48-13		→ 48-5
48-5		→ 48-5
→ 55-5		

#.237n at A



Table	Page	r
16-13		
→ 48-13		
16-13	I3-15	
40 13		

Table	Page	r
C4a	16-13	48-13 C4a
		→ 48-13
C4b		→ I3-26
C4b	→ 16-13	C4b

Class check list for (4c), finished

#237r at A

Table	Page	r
C4c#2	16-15	→ (m.c.)

Table	Page	n
16-12	→	16-12
16-12	→	16-13 I3-8

Table	Page	r
16-12	I3-11	I3-11
I3-11	→	16-13
16-13	→	46-27
→	46-26	1-2 16-12 I3-25
16-13	→	
23-6	→	23-4

Table	Page	n
23-2	→	

Table	Page	r
23-4	→	23-26
23-26	53-6	
→	23-3	→
23-2	→	23-3

Class check list for (4d)

#241n, 242n, or 243n at A

Table	Page	n
48-13	→	16-13 I3-14

Table	Page	r
C4d#1	→	I3-26
C4d#1	→	16-13 C4d#1
→	→	

Class check list for (43), continued²*245r at A

- if one of ## 245n, ..., 248n, 253r at B \rightarrow C4d#1
 if # 252n or 253n at B \rightarrow I4-26

*246n, 247n, 249n, or 251n at A

- if one of ## 246r, 247r, 249r, ..., 252r at B \rightarrow C4d#1
 if # 251n at B \rightarrow 48-5

*246r at A

- if one of ## 246n, ..., 248n at B \rightarrow C4d#5
 if # 252n or 253n at B \rightarrow 54-6
 if # 253r at B \rightarrow 53-34

*247r at A

- if one of ## 247n, 248n at B \rightarrow C4d#5
 if # 252n or 253n at B \rightarrow 53-35
 if # 253r at B \rightarrow 53-24

*248n or 249r at A

- if # 248r, 249n, or 250r at B \rightarrow 16-12
 if # 250n at B \rightarrow 16-13
 if # 252r at B \rightarrow 23-2

*248r at A

- \rightarrow one of ## 248n, 252n, 253n, 253r at B \rightarrow C4d#1

Class check list for (11), finished



250r at A

if # 250n at B \rightarrow I4-3

if # 250r at B \rightarrow 16-13

if # 25'2r at B \rightarrow 23-5



251r at A

if # 251 at B \rightarrow 48-5

if # 252r at B \rightarrow 55-5



252n at A

\rightarrow # 252r at B \rightarrow C4d#1



252r or 253r at A

if # 252n or 253n at \rightarrow 43-1

if # 253r at B \rightarrow 43-10

253n at A



if # 253n at B \rightarrow 43-10

if # 253r at B \rightarrow C4d#3

class check list for (4e)

Table	Page #	Table	Page #
47-1	47-3	47-3	47-3
47-1	→ 47-4	47-9	
62-14	62-16	47-3	47-9
53-20	→	47-3	

class check list for (4f)

Table	Page #	Table	Page #
23-3		23-3	23-3
		23-7	
	23-3	23-7	

class check list for (4g)

Table	Page #	Table	Page #	
16-1		X		
1-1	1-1		16-5	13-2
~	~			
	22-1	→		

Class check list for CTS#04

002	005
<u>431</u>	<u>445</u>

Class check list for CTS#05

004	007	008
<u>402</u>	<u>403</u>	<u>432</u>

Class check list for CTS#07

011	012	013	014	015	016
<u>474</u>	<u>550</u>	<u>508</u>	<u>509</u>	<u>510</u>	<u>510</u>

Class check list for CTS#09

021	022	023	024	025
<u>441</u>	<u>492</u>	<u>493</u>	<u>495</u>	<u>494</u>

Class check list for CTS#10

Note: If 051 is attached
at E then the pivot must
have legrod 2.0 by U

051	052	053	054	056	061	067	063	064	065	066	067	068	076	079	080
<u>496</u>	<u>426</u>	<u>423</u>	<u>424</u>	<u>425</u>	<u>480</u>						<u>479</u>	<u>521</u>	<u>521</u>		

081	082	083	095	102	103	117	118	119	124	146
<u>521</u>	----->		<u>631</u>	<u>518</u>	<u>520</u>	<u>519</u>	<u>428</u>	<u>619</u>	<u>618</u>	<u>481</u>

Class check list for CTS#11

171	180	181	191	199
<u>435</u>	<u>433</u>	<u>454</u>	<u>451</u>	<u>464</u>

Class check list for CTS#11.1

174	192	198
<u>434</u>	<u>452</u>	<u>453</u>

Class check list for CTS#12

171	174	180	181	191	192	198	199
<u>468</u>	<u>467</u>	<u>466</u>	<u>498</u>	<u>497</u>	<u>499</u>	<u>500</u>	<u>517</u>

Class check list for CTS#11*011 at E

at F:	265r	266r	274	225r
	501	501	469	522

*261_n at F

at E:	013	014	015	016
	471	471	472	472

Class check list for CTS#15

at E:	032	033	034	035
	503	----->		

Class check list for CTS#16*052 at E

at F:	231n	234n	235n	236n	237n
	473	505	506	502	507

*125 at E

at F:	231n	234n	235n	237n
	473	505	506	507

*118 at E

at F:	235n	236n
	506	502



Class check list for CTS#17

*118 at E

at F:	235n	236n
	459	460

*052, 054, 055 at E

	F	231n	234n	235n	236n	237n
E						
052		436	455	456	457	458
054		↓	↓	↓	↓	↓
055						



Class check list for CTS#19

at F:	011	012	013	014	015	016
	437	530	461	462	463	463

Class check list for CTS#20

	E	171	174	180	181	191	192	198	199
F									
011		533	→	563	→	→	564	603	
012		718	→	721	→	→	722	723	
013		565	571	568	639	→	→	641	679
014		566	572	569	643	→	→	645	680
015		567	573	570	635	→	→	637	678
016		567	573	570	635	→	→	637	678

Class check list for CTS#21

	F	164	167
E			
002		701	531
003		716	620



Class check list for CTS#22

at F:	011	012	013	014	015	016
	478	599	514	515	516	516

Class check list for CTS#23

E/F	021	022	030
022	476	512	427
005	477	513	exc.

Class check list for CTS#24

E/F	021	022	023	025
021	532	561	562	602
022		632	633	676
023			634	677
025				686

(symmetric)

Class check list for CTS#25

at E:	171	172	173	175	176	181	182	183	184	185
	589	591	595	590	592	659	663	665	662	669

186	187	188	189	190	193	194	199	200
664	→	→	→	→	→	→	→	→
			661	664	660	668	681	682

201	202	203	204	211	212	213	214	215
685	683	684	729	611	610	612	613	614

216	217	218	219	220	221	224	225	226
604	605	730	607	606	615	616	617	689

227	228	229
690	691	688





Class check list for CBS# 6

at B:	161	162	163	164	165	166	167
	551	552	553	720	622	623	624

Class check list for CBS#20

E \ F	161	162	163	164	165	166	167
161	exc.	536	537	711	598	599	600
162		538	539	712	583	584	587
163			540	713	585	586	588
164				702	726	727	725
165	(symmetric)				670	671	672
166						673	674
167							675

Class check list for CTS#29

E \ G	011	012	013	014	015	016
231n	541	714	598	599	581	581
234n	563	721	639	643	635	635
235n	↓	↓	↓	↓	↓	↓
236n	↓	↓	↓	↓	↓	↓
237n	↓	↓	↓	↓	↓	↓

Class check list for CTS#30

* 011 at F



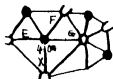
E \ G	265r	266r	774	325r
012	721	721	715	728
015	635	635	580	687
016	635	635	580	687

Class check list for CRT#50, finished

*261n at G

E \ F	011	017	013	014	015	016
015	exe	714	574	575	578	578
013	exe.	↓	574	575	578	578
015	535	↓	576	577	579	579
016	535	↓	576	577	579	579

Class check list for CRT#51



E \ F	011	017	015	014	015	016
017	563	721	639	643	635	635
035	↓	↓	↓	↓	↓	↓
054	↓	↓	↓	↓	↓	↓
047	↓	↓	↓	↓	↓	↓

Class check list for CRT#52

E \ F	591	541	597	594	597
531n	541	598	599	600	601
534n		670	671	672	622
535n			673	674	623
536n	(symmetric)			675	624
537n					621

(w=3)



Class check list for (5a) and (5e)

Table 2	Page/n	Table 2	Page/r
2-4	21-2	1-2	2-2
2-11			2-11
2-13	21-3	19-2	19-7
	19-2	29-18	49-6
			21-16
			16-2

(w=3)



Class check list for (5b) and (5f)

Table 2	Page/n	Table 2	Page/r
2-2	-----	3-26	-----
2-9		2-9	
2-9	-----	3-25	18-14
	21 6	2-9	18-16
	2-9		23-2

(w=3)



Class check list for (5c) and (5g)

Table 2	Page/n	Table 2	Page/r
3-26	-----	3-27	-----
3-27		3-27	
3-27	-----	3-27	17-10
	3-27		17-10
			24-8

(w=3, v=40)



Class check list for (5h)

Table 2	Page/n	Table 2	Page/r
I1-9	I3-31	I3-34	I3-35
	I5-31	I4-27	
			I1-7

$(w=3, v=40)$ 

Class check list for (54)

Table 2	Page n	Table 2	Page r
I1-3	----->	I1-3	-----> I3-18 ----->
I1-3	----->	I3-13	30-15

 $(w=3, v=40)$ 

Class check list for (5j)

Table 2	Page n	Table 2	Page r
I1-6	----->	I1-6	-----> I3-18 ----->
I1-6	----->	I3-13	30-15

Class check list for (5k)

Table 2	Page	Table 2	Page 2
21-1	49-15 16-2 ----->	18-16	-----> I3-18 18-16 ----->
17-1	----->	18-13	-----> 48-7 21-5
16-2		16-4	-----> 46-13
		17-3	-----> 16-3 46-23
		49-16	-----> 22-11 25-16
		35-17	

Table 2	Page 3
I3-16	18-17 I3-16 48-9 I3-16
I3-16	18-17 -----> I3-17
18-17	-----> 18-17
18-17	-----> 18-9 ----->
18-12	49-17 ----->
	-----> 48-11 27-11 52-3 56-11
30-15	33-3

Class check list for (5L)



Table 2	Page 3
	16-1

Table 2	Page 4
17-8	46-2 46-13 → 47-1
47-1	
	16-2 →
46-23	
46-5	15-34 47-3 14-15 46-17
46-17	46-18 46-17 → 46-18
46-17	→ 46-18 47-20 →

Table 2	Page 5
47-20	→ 62-6
47-20	47-2 →
	→ 46-23
	46-23
	47-10 47-2 →
47-10	62-17 → C5L
	→ 53-23

Table 2	Page 6
53-23	→ C5L
C5L	→ 55-2 55-16 17-8
47-12	47-11 →

(604, ..., 607, 615, 616, 617)



Class check list for (5Ln)

$$\left\{ \begin{array}{l} \text{if } L = 604n, 607n \quad | \quad | \\ \text{if } L = 615n \rightarrow 52-22 \\ \text{if } L = 616n \text{ or } 617n \rightarrow 22-4 \\ \text{if } Lr \rightarrow 16-12 \end{array} \right.$$

(604, ..., 607, 615, 616, 617)



Class check list for (5Lb)

if Lr → CTL #76

Table 2	Page 5n
	22-13 →
52-24	52-30

Table 2	Page 6n
	CTL #77
CTL #77	→
	CTL #77

Class check list for (5m) $(w=5, v=40 \text{ or } 35)$ 

Table 2 Page 6m		
27-13	16-12	→ I3-8 16-12
	16-12	16-12
16-12	16-12	16-12

Table 2 Page 6r		
30-20	16-12	I3-8 ↘ 16-12
	I3-8	16-12
I3-8	16-12	I3-8

Table 2 Page 7m		
→		16-12 →
	16-12	→
→	I3-8 16-12	→

Table 2 Page 7r		
		16-12 16-13
16-12		→
	I3-8 16-12	→
48-1	→	48-5
		→ 48-4

Table 2 Page 8m		
48-5	16-12	→

Table 2 Page 8r		
48-5	23-3	23-2
→		

Class check list for (5n) $(w=5, v=40 \text{ or } 35)$ 

Table 2 Page 6m		
I1-16	I3-6	→ I4-3 I3-6
	I3-6	I3-6
I3-6	I3-6	I3-6

Table 2 Page 6r		
I1-6	I3-6	I4-3 → I3-8
	I4-3	I3-8
I4-3	I3-8	I4-3

Class check list for (5n), finished

first row →

Table 2	Page 7n
	I3-8
	I3-8
	I4-3 I3-8

Table 2	Page 7r
	I3-8 I4-3
I3-8	I4-3 I3-8

Table 2	Page 8n
	I3-8

Table 2	Page 8r
	I4-14 I2-20 → I4-14
I4-14	

Class check list for (5o)

(w=5, v=40 or 35)



Table 2	Page 6n
I1-29 I3-6	→ I4-3 I3-6
I3-6	I3-6
I3-6	I3-6 I3-6

Table 2	Page 6r
I1-6 I3-6 I4-3	→ I3-8
I4-3	I3-8
I4-3	I3-8 I4-3

first row →

Table 2	Page 7n
	I3-8
	I3-8

Table 2	Page 7r
	I3-8 I4-3
I3-8	I4-3 I3-8

Class check list for (5o), finished

Table 2 Page 8n	Table 2 Page 8r
I3-8 →	I4-14 I2-20 → I4-14 I4-14

Class check list for (5p)

(w=5, v=40 or 35)



first row →

Table 2 Page 6n	Table 2 Page 6r
I1-3 I3-6 → I4-3 I3-6 I3-6 I3-6 I3-6 I3-6 I3-6	I1-3 I3-6 I4-3 → I3-25 I4-3 I3-25 I4-3 I3-25 I4-3
Table 2 Page 7n	Table 2 Page 7r
I3-25 → I3-25 → → I4-3 I3-25 →	I3-25 → I3-25 →
Table 2 Page 8n	Table 2 Page 8r
I3-25 →	I3-25 →

Class check list for (5q)

Table 2 Page 8		
17-1		
47-1	----->	62-3
17-1	46-13	47-10
16-2	----->	16-2
16-2	----->	55-11 22-13

Class check list for (5r)

(421, 422 cannot be attached)



$u^i - u^j$	4.5n	4.6n	4.5n	4.7n	4.2n
4.5r	48-6	---	----->		55-3
1.4r	48-6	----->	----->		55-3
4.6r	48-6	---	----->		55-3
4.7r	48-6	----->	----->	48-3	55-3
4.2r	55-3	----->	----->		61-3

Class check list for (5s)

(604, ..., 607, 615 cannot be attached)

one pair of
 $\{616, 617\}^2$ at (z^1, z^2)



→ 1-1

Class check list for (6a)

if 411, 441, 492, 493, or 494 at X



Fig.	1.	2	3n	3a	3n	3r	6n	6r	7n	7r
Fig. 12 (b)	1-22	1-27	1-27	1-21	1-2	1-22	1-2	1-27	Fig. 12 (a)	

if 491 or 495 at X



Fig.	1	2n	2n	2n	3n	3n	7n	7r
	1-3	1-11	1-13	1-13	1-3	1-11	1-13	Fig. 12 (a)

Class check list for (6b)

X \ T	1	2n	2r	2n	4n	5n	5r	6n	7n
401	exc.	1-25	1-3	1-29	→	1-23	1-3	1-25	1-29
402		6-13	2-2	6-14	→	6-15	2-2	6-13	6-14
403		6-30	2-2	6-32	→	6-28	2-2	6-30	6-32
411 or 465		6-21	1-3	6-22	→	6-20	1-3	6-21	6-22
452		21-27	2-2	Fig. of Lemma (5,7)		21-26	2-2	21-27	666



Class check list for (6c)

X \ Y	401	402	405	451 or 465	452
401	1-24	6-12	6-24	6-35	20-35
402		20-27	20-26	20-28	49-28
403			21-35	20-31	666#1
451 or 465				20-29	666#2 or 3
452					666#4

symm.



(continued next page)

Class check list for (6a), finished

$X \setminus Y$	433	434	435	436	437
433	2-2, 2-9				
434		4-15			
435					
436					
437					2-1

symm.

Class check list for 6b


$k \setminus$ 6b#	1	2	3	4
7	2-2	→		
8	7-3	→		
9	12-7	→		
10	Fig. 12 (f)	15-11	15-15	15-11
> 10	(f)	Fig. 12 (g)		(k)

Class check list for (6d)

if $\deg(V^{(i)}) = 2$ (i.e., 11, 14, 15, 20, ..., 40) at \bar{x}
 $\rightarrow 1-20$
 if $\deg(V^{(i)}) = 7$ (i.e., 44) at \bar{x}

at \bar{y} :	44r	55n	55n	55n	720n
\rightarrow	Fig. 12 (c)	Fig. 12 (d)	1-2	Fig. 12 (d)	


Class check list for (6n)



$L(u) \backslash L(v)$	401r	402r	403r	411	421n	431r	432n	433r	434n	435n	436n	437n	438n	
401n	1-24	6-12	6-24	1-21	821	6-24	872	6-12	1-21	...	1-6	1-21	6-12	1-21
402n		20-27	20-26	6-11	823	6-12	824	20-27	6-11				20-27	6-11
403n			21-35	6-27	825	6-24	826	20-26	6-27			1	20-26	6-27
411				(-20)	841	1-21	842	6-11	1-20				6-11	1-20
421n					873	1-24	874	6-12	1-21				6-12	1-21
431r					875	873	876	877	878	879	1-3	880	881	882
432n					877	6-12	884	20-27	6-11				20-27	6-11
433r					876	874	883	884	885	886	1-3	887	888	889
435n									1-20				6-11	1-20
434r										1-20			6-11	1-20
436n											1-3		6-11	1-3
437r											1-20		6-11	1-20
438n													20-27	6-11
439r														1-20

see the symmetric entries

Class check list for (6r)



$L(u) \backslash L(v)$	401n	402n	403n
401r	801	1-2	802
402r		symm.	803
403r			

Class check list for (6i)

$L(u) \backslash L(v)$	451n	452n	453n	454n	455n	456n	457n	458n	459n	459n	459n	454n
401r	827		828	1-5	829	830		861	1-5			862
402r	2-1			1-2		1-2	19-11	1-2				1-2
403r			831	832	833			868	869	870		871

(continued next page)

Class check list for (61), finished.

$L^a \backslash L^b$	455n	456n	457n	458n	459n	460n	461n	462n	463n	464n
401r	863	864	865	866	869	865				867
402r	19-23	99-19	49-24	19-22	7-1	→				1-2
403r										872

Class check list for (62)

433r	434r	435r	436r	437r	441r	466r	467r	468r	469r
2-1	3-26	5-2	812	813	5-1	2-1			2-1
473r	474r	475r	476r	477r	478r	479r	480r	481r	482r
16-12	→	852	853	16-12	2-1	2-2			854

Class check list for (6n)

$L^a \backslash L^b$	455r	454r	453r	456r	457r	441r	466r	467r	468r	469r
455n	2-2	4-14				5-8	2-2	4-14		2-2
454n		4-15				5-10	4-14	4-15		16-7
455n						8H				
456n						812				
457n					2-1	813				
441n						843	5-8		851	18-1
466n							2-2	4-14		2-2
467n								4-15		16-7
468n										
469n										16-1

symmetric



(continued next page)

Class check list for (6n), finished

$L^{(n)}$	471r	472r	473r	474r	475r	476r	477r	478r
433n						2-1	2-2	
434n						3-26	3-27	
439n						5-2	5-15	
436n						834		
437n			2-1	→		835		2-1
441n	16-30	17-22	852	853	16-31	5-1	5-9	854
466n						2-1	2-2	
467n						3-26	3-27	
468n						5-2	5-15	
469n						2-1	2-2	
471n						16-12	16-13	
472n						16-12	16-13	
473n			2-1	→		891		2-1
474n				2-1		892		2-1
475n						16-12	16-13	
476n						2-1	2-2	893
477n							3-26	
478n								2-1

Class check list for (7a)

If one of ## 437, 467, 462, 463 is attached then the other L-situation is also one of these four. → 2-1

$L^{(n)}$	431n	432n	433n	434n	435n	436n	451n	452n
441r	901		902	2-4	903	904	921	2-4
432r		2-1						
433r			905	1-5	906	907	926	1-5
434r				1-5	1-5	19-10	1-5	1-5
435r					908	909	926	1-5
436r						910	931	19-10
451r							951	1-5
452r								1-5



(continued next page)

Class check list for (7a) finished

$X \setminus Y$	453n	454n	455n	456n	457n	458n	459n	460n	464n
451r	2-4	922	923			924	923		925
452r									
453r	1-5	927	928			929	928		930
454r	1-5		928			929	7-2		1-5
455r	1-5	927	928			929	928		930
456r	19-10	932	933			934	933		935
451r	1-5	952	953			954	953		955
452r	1-5		976			19-31	7-2		1-5
453r	1-5		977			19-31	7-2		1-5
454r		956	957			958	957		959
455r			961			962	961		963
456r				961		962	961		963
457r					961	962	961		963
458r						966	962		967
459r							961		963
460r								961	963
164r									971

symm.

Class check list for (7g)

$X \setminus Y$	441	441n	441r	497n	492n	495n	494n	495n	551n	552n	553n
401	1-21			1-21							
402	6-11			6-11							
403	6-27			6-27							
451	6-19			6-19							
452	21-25			21-25							
453				5-8							
454				5-10							
455				811							
456				812							
457				813							
465	6-19			6-19							

Class check list for (7h)

X \ Y	401n, 402n, 403n, 433n, ..., 436n, 451n, ..., 460n, or 464n	437n, 461n, 462n, 463n, or 530n
401r, 402r, 403r, 433r, ..., 436r, 451r, ..., 460r, or 464r	1 - 1	2 - 1
437r, 461r, 462r, 463r, or 530r	2 - 1	19 - 1

Class check list for (8a)

Table 2 Page 8	Table 2 ² Page 3
w=5	32-27 22-11 → 26-1 52-30
25-17 w=7	52-30 52-24 52-30 52-24 52-45
51-8 → 63-2	27-6 28-3 → 28-7 55-12
25 17 50-12 51-10	52-31 → 52-27 52-28 52-33
51-31 C8a#1 C8a#2 51-11	52-29 52-16 → 62-17 52-32
51-11 → C8a#3, v=70	

Class check list for (8b)

Table 2 ² Page 4 _u	Table 2 ² Page 4 _r
27-28 →	27-28 24-1 → 24-18 55-4
24-1 →	24-1 → 24-18 55-4
24-1 →	24-1 24-18 55-4
24-18 →	24-18 55-4
55-4	55-4
27-28 15-5	24-1 →

Class check list for (8db)

Lat H:

Table 2		Page 4	
50-2	50-29	51-18	
51-4	→ 50-26		→
51-3			

Class check list for (8dc)

Lat B:

Table 2		Page 4	
63-9	50-29	51-18	
51-4	→ 50-26		→
51-3			

Class check list for (8dd)

Lat D:

Table 2		Page 4	
50-28	51-10	→	
50-2	→ 50-28	→	I2-20
I4-14	50-18	I2-20	I4-14 50-18
I2-20	I4-14	50-18	I2-20 I4-14

Table 2		Page 5	
I2-20	I4-14	16-30	17-22 18-1
50-28	I2-20 I4-14		I2-20
I4-14	→ 51-10		
	51-10	I2-20	I4-14 →
50-28			

Class check list for (8e)

Table 2		Page 2	
17-9	→ 33-9	→	
31-27	55-35	56-13	→ C8e#1
56-13	C8e#2	8-29	32-11 8-30
32-8	8-29	29-12	29-10 C8e#3
29-12	C8e#4	56-6	32-11 56-7
56-8	C8e#3	56-7	C8e#4
56-31	56-32	63-7	43-22

Class check list for (8f)



Table 2 Page 4n	
26-1	→ 22-1
22-1	→ 28-4
	→ 22-1

Table 2 Page 5n	
22-1	→ 53-20
22-1	→ 1-1
	→ 22-1 23-27
23-27	→ 23-27
	→ 22-1
	→ 26-1
	→ 1-1
	→ 1-1

Table 2 Page 6n	
43-1	→ 23-27
23-27	→

Class check list for (8g)



Table 2 Page 4n	
50-3	→ 51-14 50-23 51-14
51-14	→ 50-19 → 50-18
50-19	→ 50-18 51-14

Table 2 Page 5n	
51-14	→ C8g
51-14	→ 1-1
	→ 51-14 23-26
C8g	→ C8g
	→ 51-14
	→ 50-10 50-24 1-1
	→ 1-1

Table 2 Page 6n	
C8g	→ 2-1 C8g
C8g	→

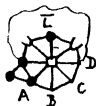
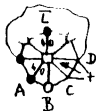
Class check list for (81)

Table 2 Page 4n	
50-7	→ 1-1
	→ 50-19 → 50-18
50-19	→ 50-18, 1-1

Table 2 Page 5n	
1-1	→ 26-19
1-1	→ 1-1
	→ 13-24
23-24	→ 23-24
	→ 1-1
	→ 1-1
	→ 1-1

Table 2 Page 6n	
1-1	→ 1-1
23-24	→

Class check list for (83)

- if # 451, 452, or 454 at A → T4-31
- if # 453 at A → L5-13
- if # 455 or 461 at A → I2-20
- if # 456, 457, 459, 460, or 462 at A → I4-14
- if # 458 or 463 at A → I4-33

Class check list for (8k)



Table 2	Page 4 n
26-5	50-3 51-25 50-15 26-5
26-5	→

Table 2	Page 5 n
26-5	→ 23-1
	→ 23-18
	→ 23-18
23-18	55-5 → 23-18
	→ 23-18

Table 2	Page 6 n
23-18	→

Class check list for (8l)



Table 2	Page 4 n
C8E#2	→ 22-3 → 25-31
25-31	50-18 25-31 → 50-18
25-31	→ 50-18 25-31 →

Table 2	Page 5 n
25-31	→ 25-30
	→ 22-10
	→ C8E#1
	→ C8E#1
	C8E#1 22-3
	→ C8E#2 22-3 C8E#1
	→ C8E#1

Table 2	Page 6 n
C8E#1	→

Class check list for (8r)



Table 2		Page 4m	
50-3	→	51-4	50-23 1-3
2-2	1-2	1-3	2-2 1-2
1-3	2-2	1-2	1-3 2-2

Table 2		Page 5m	
1-3	2-2	1-2	→
→		1-3	2-2 1-3
2-2	→	→	1-2
→	→		1-2
	1-2	1-3	2-2 →
1-2			1-2
←	→		1-2

Table 2		Page 6m	
1-2	→		

Class check list for (8p)



Table 2		Page 4m	
26 9			22 7
22-7	→	23-15	→ 23-16
23-15	→	23-16	23-15 →

Table 2		Page 5m	
23-15	→	23-16	→
-		23-15	→
-		→	23-16
	→		23-16
	23-16	23-15	
23-16	26 9	→	23-16
→			23-16

Table 2		Page 6m	
23-16	→		

Class check list for (8q) and (8r).



if # 474 at H \rightarrow I2-1

if # 475 at H \rightarrow



$\left\{ \begin{array}{l} \text{if } T2\#6 \rightarrow I-14 \\ \text{if } T2\#7 \rightarrow I-17 \end{array} \right.$

if # 476, 477, or 478 at H \rightarrow I4-12

if # 466, ..., 473, 479, or 480 at H, in case (8q)



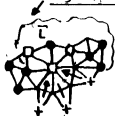
\rightarrow I-11 by Lemma $(T2, T2, T)$

if # 466, ..., 473 at H, in case (8r)



Table 2	Page 4 n	Table 2	Page 5 n
		I2-20	I4-14 I5-24
		\rightarrow	I2-20 I4-14 I2-20
		I4-14	\rightarrow I5-23
		\rightarrow	I5-23
I5-1	\rightarrow	I2-20	
I4-14	I5-24	I2-20	I4-14
I2-20	I4-14	I5-24	I2-20
		I4-14	
		I5-23	

if # 479 or 480 at H, in case (8r)



\rightarrow I5-23

Class check list for (8s)



Lat A:

Table 2	Page 1n
1-2	
1-3	2-2

Table 2	Page 1r
1-2	
1-2	→
1-2	2-2 1-2
1-2	

Table 2	Page 2n

Table 2	Page 2r
1-2	→
1-2	→ 1-3
2-2	→ 1-2

Table 2	Page 3r
1-2	
1-2	→ 1-2
1-2	→ 1-3 → 1-2
→ 2-2	→
→ 1-2	→
1-2	→

Table 2	Page 6r
1-2	

Class check list for (8t)

V=40 of
35

Table 2	Page 6
7-2	23-2 → 26-4 →
	23-2 23-2
23-2	23-2 23-2

Table 2	Page 7
	23-2 →
	→ 26-4 →
23-2	→

Table 2	Page 8
55-5	23-2 →

Class check list for (8u)



$$V = 40 \text{ or } 35$$

Table 2	Page 6n
I 2-8	26-10 50-8 → 26-5
	26-5 26-5
26-5	26-5 26-5

Table 2	Page 6r
7-7	26-10 50-8 → 26-10
	26-10 26-10
26-10	26-10 26-10

first row →

Table 2	Page 7n
	23-18 →
	23-18 → 23-1
23-1	→

Table 2	Page 7r
	23-1 23-19 →
	23-19 → 23-1
23-1	→
55-5	→
	→ 23-19 →

Table 2	Page 8n
26 5	23-18

Table 2	Page 8r
26-10	23-19

Class check list for (8v)

$$V = 40 \text{ or } 35$$



Table 2	Page 6n
1-20	23-20 → 26-22 1-2
	1-2 1-3
1-3	2-2 2-2

Table 2	Page 6r
1-27	23-20 26-22 → 23-20
	33-4 23-20
33-4	23-20 33-4

Class check list for (8v), continued

Table 2	Page 7n	Table 2	Page 7r
first row →	4-2 →		23-20 I4-30
	1-2 → 1-3	2-2 1-3 1-2 →	I4-30 2-2 1-3
1-3 →	2-2 →	2-2 →	
23-20 I4-30 1-2 1-3 2-2			
1-2 →			
Table 2	Page 8n	Table 2	Page 8r
	1-2 →		2-2 1-3 1-3 2-2
		2-2	

Class check list for (8w)



if 441r at A

Table 2	Page 6n	Table 2	Page 6r
	22-10 53-15 → 1-2	26-6 53-15 → 53-18	
	1-2 1-3	53-12 53-18	
1-3	2-2 2-2	53-12 53-18 53-12	
Table 2	Page 7n	Table 2	Page 7r
(first row)	1-2 →		53-18 I5-29
	1-2 → 1-3	2-2 1-3 1-2 →	I5-29 2-2 1-3
1-3 →	2-2 →	2-2 →	
53-15 →	1-2 1-3 2-2		
1-2 →			
Table 2	Page 8n	Table 2	Page 8r
	1-2 →		2-2 1-3 1-3 2-2
		2-2	



Class check list for (8w), finishedif 494n at A

v=40 or 35


 $\rightarrow \bar{L} \text{ is } \begin{cases} 683r \text{ or } 684r \rightarrow 2-2 \\ \text{or } 682r \rightarrow 2-1 \end{cases}$
Class check list for (8x)

v=40 or 35



Table 2 Page 6	Table 2 Page 7
8 8 23-8 \rightarrow 26-8 23-8	(first row) 23-8 \rightarrow
23-8 23-8	23-8 \rightarrow
23-8 23-8 23-8	
Table 2 Page 8	
23-8 \rightarrow	

v=100 or 95

Class check list for (9a)

Table 2 Page n	Table 2 Page r
32-27 56-14 22-2 22-11 \rightarrow	7-2 \rightarrow 25-16 \rightarrow
26-1 \rightarrow	25-1 \rightarrow

$v=100$ or 95

Class check list for (9b)

Table 2	Page/n	Table 2	Page/r
7-2	→ 22-13	9-1	→ 27-23
26-3	→	22-3	→

Class check list for (9c)
if \bar{L} non-reflected, but not #475 at B
 $v=100$ or 95

 Lat B:
 $(w \leq 4)$

Table 2	Page 1	Table 2	Page 2
	25-17		
	25-16	→	
25-1	→	25-19	→ 54-15
25-17		28-9	→ 25-20 exc
		56-1	→ 44-13 43-18
		#5 19	

if \bar{L} non-reflected and #475 at B
 $v=100$ or 95

 \bar{L} :

Table 2	Page/n
1-1	2-1 1-1
→	2-1

Class check list for (9e), finished

if L is 431r or 432r $v=100$ or 95

Table 2	Page 1
30-1	→
56-2	43-23

Table 2	Page 2
23-2	→ 30-15 23-2

Table 2	Page 3
30-1	→ 30-1
30-1 23-2	→ 31-6
23-2	→ 23-2
23-2	
→	43-23 11-24 43-23
43-23, 43-2	

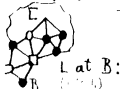
 $v=100$ or 95if L is one of 433r, 434r, 435r

Table 2	Page 1
51-6	
22-29	→
51-21	→
51-6	

Table 2	Page 2
22-30	22-32
51-21	→
51-6	→ 22-32

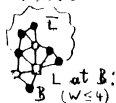
 $v=100$ or 95if L is 436r or 437r

Table 2	Page 1
51-17	
25-21	→
→ 51-17	
51-17	

Table 2	Page 2
25-23	→
25-23	→ 50-1
51-17	→ 25-23

Class check list for (9d) $v=100$ or 95 

Table 2	Page/n	Table 2	Page/n
10-1	→ 30-21	→ 9-1	→ 7-21
22-7	→	→ 26-13	

Class check list for (9e) $v=100$ or 95 

- if \bar{L} is non-reflected \rightarrow I2-22
 if \bar{L} is 431r or 432r \rightarrow I2-10
 if \bar{L} is 433r, 434r, or 435r \rightarrow I5-4
 if \bar{L} is 436r or 437r \rightarrow I5-2

Class check list for (9f) $v=100$ or 95 

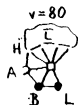
- if \bar{L} is non-reflected \rightarrow I2-21
 if \bar{L} is 431r or 432r \rightarrow I2-10
 if \bar{L} is 433r, 434r, or 435r \rightarrow I5-4
 if \bar{L} is 436r or 437r \rightarrow I5-2

Class check list for (9g) $v=80$ 

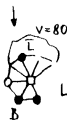
\bar{L}	411n	411r	801	80n	80r	803
	22-7	25-17	7-31	32-7	7-31	32-2

Class check list for (9h) $v=80$ 

\bar{L}	411n	411r	801	80n	80r	803
	22-7	27-24	7-21			

Class check list for (91)

L at B

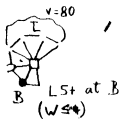
 $(w \leq 4; \text{ if } w=4 \text{ then } v \leq 80)$ \rightarrow one of ## 451, ..., 463 at B

L at B:

Table 2		Page 2	
27-28	\rightarrow	27-21	27-28 24-1
24-1	\rightarrow	24-18	24-1
	\rightarrow	28-11	

Class check list to (91)

111n	111r	101	101	\rightarrow	805
26-9	8-13	9-6			

Class check list to (91)

L5+ at B

 $(w \leq 4)$ if #441 at B \rightarrow L's 441r \rightarrow 51-8

if one of ## 491, ..., 495 at B



\rightarrow { if 491, 493, or 495 at B \rightarrow I4-23
 if 492 at B \rightarrow 27-29_r

(494 cannot be attached)

v=70 or 65



Class check list for (10a)

Table 2	Page 2	n	Table 2	Page 2	r
27-6	→	15-3	27-6	28-3	
	→	28-7	28-3		
	→	33-14	55-12	32-29	
22-12	→	54-14			
26-7	→	28-24	1-9		
22-3	56-3	→	43-5	44-14	
45-12					
27-28	→	15-5	24-1		
	→	24-18	24-1		
	→	28-11	55-6	9-22	
25-19	→	54-15			
28-9	→	25-20	C10a		
56-1	→	44-13	43-18		
45-19					

v=70 or 65



Class check list for (10a)

if \bar{L} is one of 465, 481

$$\left\{ \begin{array}{l} \deg(\alpha) = 5 \\ \deg(H) = 6 \end{array} \right\} \rightarrow \text{Lat B:}$$

Table 2	Page 2	r
27-28	→	15-5 24-1
	→	24-18 24-1
	→	28-11

if \bar{L} is 464

$$\rightarrow \deg(H) = 7 \rightarrow 464 \text{ at B}$$



Class check list for (10c), finishedif \bar{L} is one of 451, ..., 463

L at B \ \bar{L}	451, 452 or 454	453	455 or 461	456, 457, 459, 460, or 462	458 or 463
451, 452, or 454	52-3	52-3	1-3	2-2	1-2
455		52-3	12-19		52-6
455, or 461			1-3		
456, 457, 459, 460, or 462				2-2	
458 or 463					1-2

symmetric

Class check list for (10d) $v=70$ or 65

Table 2	Page 2 n
29 9 29 13	→ 27-22
	→ 31-26 27 27
	→ 27-4 55-27 7-4
22-17	→ 54-16
26 9	
22-7	→ 43-6 44-16
49-14	

Table 2	Page 2 r
30-17	→ 24-5
24-5	→ 23-19 24-5
	→ 28-14 55-25 9-26
27-25	→ 54-17
33-18	→ 22-3 C10d
28-24 27-26 22-3	45-1 43-27
45-25	

Class check list for (10e) $v=70$ or 65

- if $\bar{L} = 465$ $\deg(E)=6, \deg(F)=5 \rightarrow 8-13$
 if $\bar{L} = 451, \dots, 464 \rightarrow \deg(E)=\deg(F)=5 \rightarrow 7-7$
 if $\bar{L} = 466, \dots, 481 \rightarrow \deg(E)=\deg(G)=5, \deg(H)=6$
 $\rightarrow 27-18$

Class check list for (10f) and (10g)

if $\bar{L} = 451n, \dots, 460n, \text{ or } 464n$ 

L4 at B:

Table 2		Page 2	
25-19	→	1-1	54-15
1-1	→		
56-1	→	1-1	44-13 7-1
1-1	→		

451 at B implies
441 at B which is
impossible by
sub-case hypothe-
sis (but would
yield (9-17))

if $\bar{L} = 461n, 462n, \text{ or } 463n$ 

L4 at B:

Table 2		Page 2	
25-19	→	2-1	54-15
2-1	→		
56-1	→	2-1	44-13 2-1
2-1	→		

if $\bar{L} = 451r, \dots, 464r \rightarrow \text{deg}(E) = 5 \rightarrow (10f)$ 

→ I2:9

Class check list for (10F) and (10G), continued

$$\text{cf } \bar{L} = 465_n$$



L4 at B:

Table 2	Page 1
	$27-15$ $27-19$ $57-3$ $56-2$ $43-23$

Table 2	Page 3
$I4-23$	$31-6$ →
$33-17$ →	$33-17$
$33-17$ →	$23-1$ → $26-5$
$23-18$ $26-5$	→ $43-23$ $I5-9$ $43-23$
$43-23$	$43-2$

$$\text{cf } \bar{L} = 465_r$$

8 13
r

$$\text{cf } \bar{L} = 466_n, \dots, 481_n \rightarrow \text{deg}(E) = 5 \rightarrow (10f)$$



L4 at B:

Table 2	Page 1
	$27-15$ $27-19$ $57-3$ $I4-12$ $43-23$

Table 2	Page 3
$I4-23$	$27-20$ →
$27-33$ →	$27-33$
$27-33$ →	$I2-1$ →
$31-15$ $I4-12$	→ $43-23$ $I5-9$ $43-23$
$43-23$	$43-2$

Class check list for (10f) and (10g), finished

if $\bar{L} = 466r, \dots, 481r$ 

(425 need not be considered for attachment at B since it would imply the occurrence of 441 which is ruled out by sub-case hypothesis)

B L4 at B: one of $466r, \dots, 481r$ at B

{ if one of $466, \dots, 473, 479, 480, 481$
 occurs as \bar{L} or at B \rightarrow 8-13
 { if only $474, \dots, 478$ occur (as \bar{L} and at B)

{ if (10f) \rightarrow Part II: 474 475 476 477 478
 12-1 14-10 14-12, --- \rightarrow



{ if (10g) \rightarrow

at B \ \bar{L}	474	475	476	477	478
474	50-9 \rightarrow		51-32 \rightarrow		50-9
475		50-9	51-16	51-20	50-9
476			C10g \rightarrow		51-32
477	symmetric			C10g	51-32
478					50-9

Class check list for (10h) and (10i)

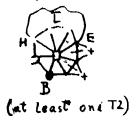
 $v=70$ or 65 

Table 2	Page 2n
30-28	→ 24-15
24-15	→ 24-33 24-15
	→ 28-16 I2-26

Table 2	Page 2r
	I2-26
I2-26	→
I2-26	→ I4-10
I2-26	→

Class check list for (10j)

 $v=70$ or 65 

Table 2	Page 2n
	I4-23
I4-23	→ I4-23
	→

Table 2	Page 2r
52-4	→ 52-11
52-11	→ 52-9 52-11
	→ 52-10 I4-23

Class check list for (10k), ..., (10q)

 $v=70$ or 65 if \bar{L} is 465 → 10-17if \bar{L} is one of 466, ..., 473, 479, 480, 481 → 10-9if \bar{L} is one of 451, ..., 463, 474, ..., 478

Table 2	Page 2
I4-31	→ I2-20
I4-14	→ I4-33 I4-14
I2-20 I4-14	I4-33
	I2-1 I4-10
I4-12	→



Class check list for (10r)

494n	494r	494n	494r	494n	494r	495n	495r
27-5	27-29	I4-22	I4-23	55-13	55-18	I4-22	I4-23



Class check list for (10g)

494n	494r	495n	494r	494n	494r	495n	495r
27-7	30-5	C10s	30-5	55-34	55-25	57-4	30-5



Class check list for (10t)

494n	494r	494n	494r	494r	495n	495r
30-12	8-13	30-12	8-13	8-13	30-12	8-13



Class check list for (10u)

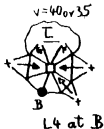
Table 2	Page 3n		Table 2	Page 3w
I4-22	27-10	→ C10u#1	I4-23	27-32 → C10u#2
I4-10	33-10	C10u#3	54-18	28-34 C10u#4
33-10	31-25	33-11 → 33-15	28-34	28-35 31-9 →
31-24	56-30		31-15	56-17
→ 55-14	43-12	C10u#5	→ 55-19	43-23 I5-9
43-12	C10u#6	43-12	43-23	43-34

Class check list for (10v)

if \bar{L} is reflected → $\deg(F)=5$ → I2-26

if \bar{L} is not reflected → $\deg(a)=5$

$\left\{ \begin{array}{l} \text{if } 421n \text{ at } B \rightarrow \text{I2-1} \\ \text{if } 421r \text{ at } B \rightarrow \text{I2-12} \\ \text{if } 422n \text{ at } B \rightarrow \text{I4-12} \\ \text{if } 422r \text{ at } B \rightarrow \text{32-4} \end{array} \right.$



$v=70$ Class check list for (11a)

401a	401r	402n	402r	403n	403r
7-9	7-3	32-1	7-3	1-2	7-3

 $v=70$ 

Lat B

Class check list for (11b)if \bar{L} is not reflected \rightarrow 423 at B \rightarrow 25-17if \bar{L} is reflected

at B: 424	424	425	427	428
27-15	27-19	57-3	56-2	43-23



Lat B

 $v=70$ Class check list for (11c)

401n	401r	402n	402r	403n	403r
7-31	7-21	32-2	7-21	32-7	7-21

Class check list for (11d) $v=40$ 

Table 2	Page 1n	Table 2	Page 1r
7-22	32-3	29-1	29-34
57-5			
Clid	29-1	44-30	
			7-10 \rightarrow 25-17

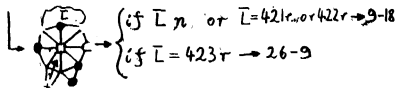
Class check list for (11e) $v=40$ 

Table 2	Page 1n	Table 2	Page 1r
Clid #1	32-4	29-2	29-11
57-4			
Clid #2	29-2	44-31	
			8-1
			32-5
			27-15
			27-19
			57-3
			56-2
			43-23

Class check list for (11a)



if 423, ..., 426, or 428 at D

if 427 at D \rightarrow I4-12

Class check list for (11a)



Table 2 Page 1n
I2-14 I5-7

Table 2 Page 1r
I2-15 I5-8 I5-6

Class check list for (11b)



Table 2 Page 1'
11-5 32-19 29-17 29-22 57-9 CTL#19 56-20 44-33

Class check list for (1a)

Table 2 Page 8	Table 2 ² Page 3
4-23	60-17 60-18 → 60-19 58-35
58-15 C12a#1 → 58-19 C12a#2	58-34 58-32 C12a#3 58-32 58-29
38-24 58-5	

921, ..., 925

Class check list for (1c) and (1e)

921n	921r	922n	922r	923n	923r	924n	924r	925n	925r
37-5	37-21	37-5	37-21	39-16	36-17	39-17	36-17	34-30	60-25

926, ..., 935

Class check list for (1d)

Table 2 ² Page 3
38-4 → 35-3 35-31 60-26
38-4 → 35-3 35-31 60-26

Class check list for (1e)

926, ..., 925

I
L at I

- if 433 at I → $\bar{L} = 926, \dots, 930 \rightarrow 5-14$
- if 434 at I → $\bar{L} = 926, \dots, 930 \rightarrow 5-25$
- if 437 at I → $\bar{L} = 931, \dots, 935 \rightarrow 1-1$

926, ..., 935



L at A

Class check list 100 (11E)

if $\bar{L} = 926, \dots, 930$ if 433, 434, 435 at A \rightarrow 58-30
 if 436 or 437 at A \rightarrow 58-27
 if 530 at A \rightarrow 1-3

if $\bar{L} = 931, \dots, 935$ if 433, ..., 436 at A \rightarrow 1-1
 if 437 or 530 at A \rightarrow 2-1

Class check list 100 (12g)

Table χ^2 are 4	
35-5	\rightarrow
35-5	\rightarrow
35-5	\rightarrow
35-5	\rightarrow
60-26	
35-5	\rightarrow

Class check list 100 (15a)



if $\bar{L} = 828$ or $829 \rightarrow 38-35$
 if $\bar{L} = 830 \rightarrow 39-8$
 if $\bar{L} = 831, \dots, 833 \rightarrow 60-9$

Class check list 100 (15b)

Table χ^2 Page/n

Table χ^2 Page/r
I2-1 I4-12 I2-1 I4-12 I2-1 I4-12
I4-12 \rightarrow

$v=110$ or 105 Class check list for (10)

Table \mathbb{Z}^2	Page n
	60-13
12-12	40-9 12-12 40-9 12-12
40-9	40-28 34-21 → 36-29
60-8	→ 60-4 →

Table \mathbb{Z}^2	Page r
	40-28
12-16	→ 12-15 35-24 → 37-17
60-11	→ 35-6 →

Class check list for (12)

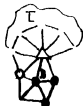
Table \mathbb{Z}^2	Page n
	40-35
12-30	→ 40-3 → 12-30
12-30	12-11 34-17 → 36-30
34-17	→ 36-29 →

Table \mathbb{Z}^2	Page r
	60-12
13-13	→ 13-21 37-24 38-2 35-6
37-24	313d 38-2 35-16 →

 $v=110$ or 105 B
L at BClass check list for (116)if 433, ..., 435, 451, ..., 454 at B

Table \mathbb{Z}^2	Page n
	38-3
38-1	→ 38-3 38-6 →
	→ 60-6 →

Table \mathbb{Z}^2	Page r
	38-3
38-14	→ 38-3 58-13 → 36-33
58-13	→ 60-16 →



Class check list for (1 e), finished

if 436 or 437 at B



Table \mathcal{L}^2 Page n	Table \mathcal{L}^2 Page r
1-1 →	58-20 → 58-1
1-1 2-1	58-20 →

if 455 or 461 at B



Table \mathcal{L}^2 Page n	Table \mathcal{L}^2 Page r
1-6 →	2-6
1-6 →	1-6 2-6 1-6
6 →	2-6 1-6
	2-6 2-6

if 456, 457, 459, 460, or 462 at B



Table \mathcal{L}^2 Page n	Table \mathcal{L}^2 Page r
2-6	19-3
2-6 →	2-6 19-3 2-6 19-3 2-6
19-3 →	19-3 2-6
	19-3 →

if 458 or 463 at B



Table \mathcal{L}^2 Page n	Table \mathcal{L}^2 Page r
1-3	2-2
1-3 →	1-3 2-2 1-3 2-2 1-3
2-2 →	2-2 1-3
	2-2 →

$v=110$ or $v=105$ Class check list for (11f)

Table \mathcal{L}^2	Page l	r
		13-10
13-15		
	→ 13-10	12-24 →
C13g#1		→ 36-30 →

Table \mathcal{L}^2	Page l	r
		13-10
13-32		
	→ 13-10	39-5 38-10 35-16 →
39-5 C13g#2		38-10 C13g#3 C13g#4

Class check list for (11g)

if 441 at I

 $v=100$ or $v=95$ 

Table 2	Page l	r
58-3	58-5	58-19
58-11	→ C13g#1	→ 1-2
58-15		

Table 2	Page l	r
58-3	58-6	58-15
58-15	1 2 C13g#1	1-2 →
58-15		

if 551, 552 or 553 at I

$$\hookrightarrow \bar{l} = 532 \rightarrow C13g\#2$$
Class check list for (11h) $v=100$ or $v=95$ 

Table \mathcal{L}^2	Page l	r
13-3	40-20	38-23

Table \mathcal{L}^1	Page l	r
13-1	→	38-23

Table 2	Page l	r
39-14	58-1	58-7
58-9	→	1-1 →
58-8		

Table 2	Page l	r
36-17	58-1	58-4
1-1		→
58-8		

Class check list for (14i)

L:	531r	841n	841r	84n	842r	84+
	I4-14	13-2	13-4	13-2	13-4	38-27

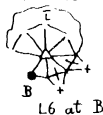
Class check list for (14j)

if $\bar{L} = 531n \rightarrow I4-14$
 if 411 at B and $\bar{L} = 841, \dots, 843 \rightarrow 13-5$
 if 491 at B and $\bar{L} = 841, \dots, 843$



841n	841r	842n	842r	843
38-29	13-5	38-29	13-5	59-4

v=100 or 95

Class check list for (15k)

851n	851r	852n	852r	853n	853r	854n	854r	549n	549r	550n	550r
39-1	38-20	37-33	38-20	38-34	38-23	60-10	38-23	38-23	60-10	38-23	38-32

Class check list for (15l)

v=90 or 85



v=80 or 75



Table 2 ¹	Page 2 ¹ n	Table 2 ²	Page 2 ² r
37-3		38-4	→ 35-3
→ 34-31	37-4	35-31	60-26 38-4 → C13E#2
37-4	34-31 12-16	38-4	60-26 12-17
12-17		→ 12-16	35-6
			12-17 12-16 35-6
36-28	→ 45-24	34-2	→ 45-24

86lr, ..., 87lr,
or 89l, ..., 89r



Class check list for (1, n)

Table 2 Page 2 n	
14-12	→ 1-20

Table 2 Page 2 r	
14-13	→ 1-20
6-11	→ 1-20

v=70 or 65



Class check list for (1, n)

Table 2 Page 4	
36-1	→ 34-1
	→ 34-5

Table 2 Page 5	
34-5	→ 34-5
	→ 34-5
	→ 34-5
34-5	→ 34-5
36-1	→ 34-5
	→ 34-5

Table 2 Page 6	
	→ 12-2

Class check list for (1, n)

v=100 or 95



Table 2 Page n	
40-27 60-2 34-8	→
36-1	→

Table 2 Page r	
12-7	→ 36-22
35-1	→

Table 1 (cont. of 110)

$\bar{I} = 100 \text{ or } 95$



if $\text{deg}(I) = 5$

at A	\bar{I}	1-1n	1-2n	1-3n	1-4n	1-5n
1-1	1-1	2-1	1-1	2-1	58-30	1-1
1-2	1-1	2-1	1-1	2-1	58-27	1-1
1-3	2-1	19-1	2-1	19-1	58-27	2-1

if $\text{deg}(I) = 6 \rightarrow \bar{I} = 431 \text{r or } 432 \text{r}$

if 423r or 441r at A $\rightarrow 35-18$



if 466r, ..., 481r at A \rightarrow

Table 2 Page 2r	
35-19	\rightarrow 59-14
37-14	\rightarrow 35-13 1-9
60-7	\rightarrow 45-13 45-18
45-30	?

$v=100$ or 95 

	\bar{L}	$431n$	$432n$	$433n$	$434n$	$435n$
at C		$36-22$	$38-5$	$35-29$	$35-13$	\rightarrow
at n		$35-1$	$35-7$	$35-13$	\rightarrow	
at n		$35-1$	$35-7$	$35-13$	\rightarrow	$58-22$

Class check list for (111)

 $v=100$ or 95 

if $\deg(F)=5$

	\bar{L}	$431n$	$432n$	$433n$	$434n$	$435n$
at D		$36-22$	$58-13$	$58-30$	$58-20$	$58-27$ $58-20$ $58-27$
at n		$35-1$	$58-20$	$1-1$	$58-1$	$1-1$ $58-1$ $2-1$
at n		$35-1$	$58-20$	$1-1$	$58-1$	$1-1$ $58-1$ $2-1$

if $\deg(F)=6 \rightarrow \bar{L} = 431n$ or $432n$ 

L at D

Table 2 Page 2 r	
$38-3$	$\rightarrow 35-5$
$35-5$	

Class check list for (14r)

 $v=100$ or 95 if $\bar{L} = 431$ or $432 \rightarrow 12-2$ if $\bar{L} = 433, \dots, 435 \rightarrow 35-17$ if $\bar{L} = 436$ or $437 \rightarrow 36-15$

$v=100$ or 95 Class check list for (14b).

Table 2	Page n	Table 2	Page r
12-2	→ 34-9 →	13-8	→ 38-1 →
36-2	→	35-4	→

Class check list for (14c) $v=100$ or 95 

Table 2	Page n	Table 2	Page r
13-10	→ 39-7 →	13-34	→ 34-17 →
35-16	→	36-30	→

 $v=100$ or 95 Class check list for (14d)

- if $\bar{L} = n \rightarrow 36-23$
 if $\bar{L} = 431r$ or $432r \rightarrow 38-21$
 if $\bar{L} = 433r, \dots, 435r \rightarrow 35-28$
 if $\bar{L} = 436r \rightarrow 35-28$
 if $\bar{L} = 437r \rightarrow 58-24$

Class check list for (14e) $v=100$ or 95 

Table 2	Page n	Table 2	Page r
13-7	→ 39-3 →	13-29	→ 35-21 →
35-6	→	37-13	→

Class check list for (11m)

v=100 or 95



Table 2	Page n	Table 2	Page r
	13-7 → 34-18 →		13-13 → 38-9 →
	36-31 →		35-10 →

v=100 or 95

Class check list for (11n)

$$\text{if } \bar{L} = 431n, 433n, \dots, 436n, \text{ or } 435r, \dots, 437r$$

$$\hookrightarrow 401, 402, \text{ or } 403 \text{ at } A \rightarrow 1-1$$

$$\text{if } \bar{L} = 432n \text{ or } 437n \rightarrow 401, 402, \text{ or } 403 \text{ at } A \rightarrow 2-1$$

$$\text{if } \bar{L} = 431r \text{ or } 432r \rightarrow 14-6$$

$$\text{if } \bar{L} = 433r \text{ or } 434r \rightarrow 401, 402, \text{ or } 403 \text{ at } A \rightarrow 13-33$$

Class check list for (14w)

431 or 432



L4 at A

$$\text{if } \bar{L} = 431 \rightarrow \begin{cases} \text{if } 451, \dots, 460 \text{ at } A \rightarrow 1-1 \\ \text{if } 461, \dots, 463 \text{ at } A \rightarrow 2-1 \end{cases}$$

$$\text{if } \bar{L} = 432 \rightarrow \begin{cases} \text{if } 451, \dots, 460 \text{ at } A \rightarrow 2-1 \\ \text{if } 461, \dots, 463 \text{ at } A \rightarrow 19-1 \end{cases}$$

$v=100$ or 95 

Class check list for (11b)

f	411	412	413	414	415	416	417
	40-32	60-14	34-23	—————>			36-34

 $v=100$ or 95 

Class check list for (14g)

Table 2	Page n	Table 2	Page r
12-7	→ 34-12	13-9	→ 38-5
36-4	→	35-7	→

Class check list for (14i) $v=100$ or 95 

Table 2	Page n	Table 2	Page r
13-10	→ 38-12	13-9	→ 34-17
35-16	→	36-30	→

Class check list for (14a)if $441n, 491n, \dots, 493n, \text{ or } 495n$ at B $v=100$ or 95 

Table 2	Page n	Table 2	Page r
36-23	→ 58-31	38-22	→ 58-14
58-24	→	58-21	→

Class check list for (11), int bot

if 41l, 41r, 491r, ..., 495r at B

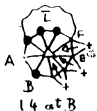
v=100 or 95



Table 2	Page 1n	Table 2	Page 1r
40-28	60-13	34-13	→
36-29	→	12-10	→ 38-7
		35-6	→

Class check list for (12b).

431 or 432



if T1*1 across B-F → 13-28.

if T1*3n across E²F (see class notes p. 2)

if 421n, 422n, 423, 466, ..., 473, 479, ..., 481 at B → 1-11
 if 421r, 474, or 475 at B → 1-14
 if 422r, 476, ..., 478 at B → 6-13

Class check list for (14a)

v=80



L4 at D

if 451, ..., 454 at D → 38-13
 if 455 or 461 at D → $\begin{cases} \text{if } L=801 \text{ or } 802r \rightarrow 1-6 \\ \text{if } L=802n \text{ or } 803 \rightarrow 2-6 \end{cases}$
 if 456, 457, 459, 460, or 462 at D → $\begin{cases} \text{if } L=801 \text{ or } 802r \rightarrow 2-6 \\ \text{if } L=802n \text{ or } 803 \rightarrow 19-3 \end{cases}$
 if 458 or 463 at D → $\begin{cases} \text{if } L=801 \text{ or } 802r \rightarrow 1-3 \\ \text{if } L=802n \text{ or } 803 \rightarrow 2-2 \end{cases}$

v = 70 or 65

Class check list for (15a)

Table 2	Page 2 n
37-2	→ C15a#1 37-2 39-14
39-14	→ 39-15 39-14
	→ 39-21 60-22 40-29
34-11	→ 59-13
36-6	→ 36-28 → 1-3
60-5	→ 36-28 45-10 45-17
45-31	

Table 2	page 2 r
38-4	→ C15a#2 38-4 35-3
35-3	→ 35-31 35-3
	→ 37-11 60-26 12-18
36-25	→ 59-12
37-35	→ 36-28 C15a#2
60-4	→ 45-22 45-23
45-32	

Class check list for (15b)if $\bar{L} = 451r, \dots, 454r \rightarrow 38-8$ if $\bar{L} = 455r$ or $461r \rightarrow 1-3$ if $\bar{L} = 456r, 457r, 459r, 460r,$ or $462r \rightarrow 12-2$ if $\bar{L} = 458r$ or $463r \rightarrow 1-2$ Class check list for (15c)

v = 70 or 65



Table 2	Page 2
57-21	→ C15c 37-21 36-17
36-17	→ 36-27 36-17
	→ 37-20 60-25 12-28
35-19	→ 59-19
37-14	→ 35-23 1-9
60-7	→ 45-13 45-18
45-30	

Class check list for (16a)

401n	401r	402n	402r	403n	403r
12-4	40-1	1-2	12-7		

Class check list for (16b)

401n	401r	402n	402r	403n	403r
14-19	14-20	40-24	14-20	1-2	14-20

Class check list for (16c)

401n	401r	402n	402r	403n	403r
12-15	12-19	40-6	40-4	1-2	40-13

Class check list for (16d)

401n	401r	402n	402r	403n	403r
12-11	12-30	40-5	40-3	1-2	12-30

Class check list for (16e)

401n	401r	402n
44-29	40-23	40-31

Class check list for (16f)

401n	401r	402n	402r	403n	403r
12-21	12-23	40-2	40-7	40-14	40-18

Class check list for (16g)

401n	401r	402n	402r	403n	403r
12-31	12-22	40-19	12-22	1-21	12-22



Check list for the S-Lemma

The CTL-situations are arranged as in Table 4, pages 1, ..., 6. The entries are the numbers of the S-situations which are contained in the CTL-situations and are placed corresponding to the position of the S in the CTL-situations.

021	021	022	021	see p. C 200	see p. C 201	001 {006 053}	{006 053}
CTL # 1		CTL # 2		CTL # 3		CTL # 4	CTL # 5
022	021	025	021	052	021	021	021
	021		021	052	021	{171 274}	{171 241}
CTL # 6		CTL # 7		CTL # 8	{171 274}	CTL # 9	CTL # 10
023	021	051	021	022			
	171		171	181		232	233
CTL # 11		CTL # 12		CTL # 13		CTL # 14	CTL # 15
052				052	022	022	022
	249		238	251			199
CTL # 16		CTL # 17		CTL # 18		CTL # 19	CTL # 20
022		051		023		051	023
052		052					023
		271					
CTL # 21		CTL # 22		CTL # 23		CTL # 24	CTL # 25

Check list for the 3-Lemma

page 2

023 051	051	191	180	180	265	274
		172		249		176
CTL # 26	CTL # 27	CTL # 28		CTL # 29		CTL # 30
266	274	248	274	274	274	267
175		247		246		267
CTL # 31	CTL # 32	CTL # 33		CTL # 34		CTL # 35
179	274	195	195	197	176	268
179						
CTL # 36	CTL # 37	CTL # 38		CTL # 39		CTL # 40
270	270		271	245		262
CTL # 41		CTL # 43		CTL # 44		CTL # 45
263	{173 264	274	{173 264			192
				193		193
CTL # 46	CTL # 47	CTL # 48		CTL # 49		CTL # 50

check list for the 3-Lemma

page 5

		198	285	(199 285)
250 CTL # 51	284 CTL # 52	CTL # 53	CTL # 54	CTL # 55
021				
012 - 022 CTL # 56	see class	check lists	on page	C 202
	CTL # 57	CTL # 58	CTL # 59	CTL # 60
see p. C 203	see class	check lists	on page	C 203
CTL # 61	CTL # 62	CTL # 63		CTL # 64
			017	024
015 015 CTL # 65	(151 137) CTL # 66		CTL # 69	CTL # 70
see p. C 205			see class check lists on page C 205	
CTL # 71	016 052 CTL # 72		CTL # 74	CTL # 75

Check list for the 31 lemma

page 4 a

see class check lists on p. C 204				
CTL # 76		CTL # 77		
067	102		083- 067	067
	067	076	098	
032		211	252	061
032				118
CTL # 81	CTL # 82	CTL # 83	CTL # 84	CTL # 85
	066	066	068	066
	067	073	072	
	066	066	066	066
253	253			313
CTL # 86	CTL # 87	CTL # 88	CTL # 89	CTL # 90
062	062	071		
		071	108	
	068			
CTL # 91	CTL # 92	CTL # 93	CTL # 94	
see class check lists on page C 204			103	see p. C 204
CTL # 96	CTL # 97	CTL # 98	CTL # 99	CTL # 100

Checklist for the 3-Lemma

page 5

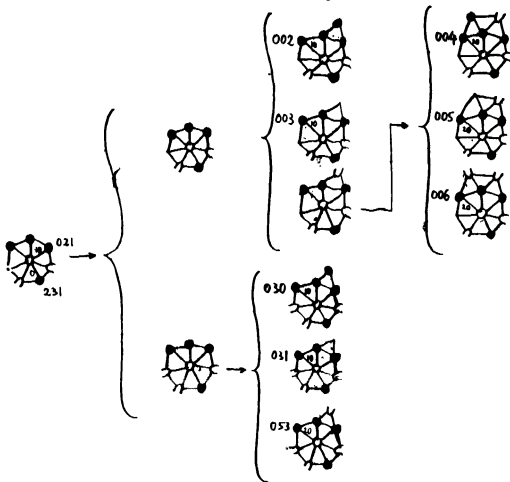
no.	class	check	lists	on	page	C 205
CTL # 101		CTL # 101	CTL # 102	CTL # 103	CTL # 104	CTL # 105
see p. C 205	no.	class	check	lists	page	C 206
CTL # 106		CTL # 107	CTL # 108	CTL # 109		
041 070		088 107	088			
CTL # 111		CTL # 111	CTL # 111			
see class check lists on page C 206			308		124	
CTL # 116		CTL # 117	CTL # 118	CTL # 119		
see class check lists on page C 207			080 080	081 081	080 082	
CTL # 121		CTL # 122	CTL # 123	CTL # 124	CTL # 125	

Check list for the S-10000

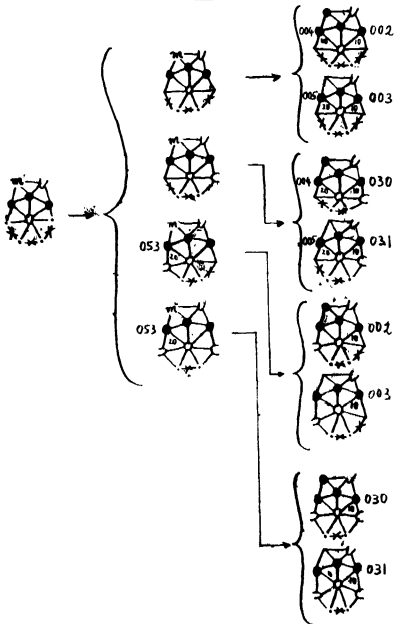
page 6

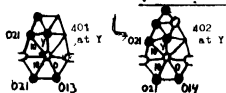
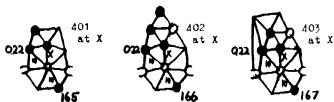
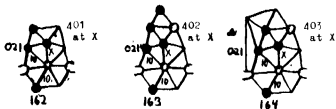
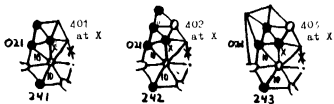
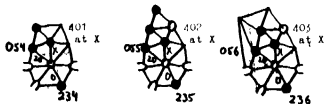
067 061 040 CTL # 126	033 039 CTL # 127	see class check lists on page C 208 CTL # 128	CTL # 129	CTL # 130
see class check lists on page C 208 CTL # 131	CTL # 132	089 075 CTL # 133	see p. C 209 CTL # 134	077 CTL # 135
see p. C 209 CTL # 136	309 CTL # 137	322 CTL # 138	see p. C 209 CTL # 139	
146				
131 146 131 CTL # 141	see class check lists on page C 209 CTL # 142	CTL # 143	CTL # 144	141 CTL # 145
see class check lists on page C 210 CTL # 146	CTL # 147	CTL # 148	CTL # 149	144 CTL # 150
145 CTL # 151	144 CTL # 152			

Check list for CTL# 3



Check list for CTL # 4



Class check list for CTL# 57Class check list for CTL# 58Class check list for CTL# 59Class check list for CTL# 60Class check list for CTL# 61



Class check list for CTL# 62

at X:	401	402	403
S:	054	055	056

Class check list for CTL# 63

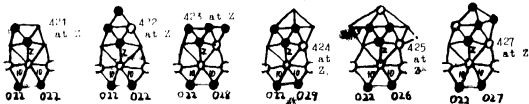


Class check list for CTL# 64



at Y:	401	402
S:	007	008

Class check list for CTL# 71



Class check list for CTL# 74



at O:	421	422	423	424	425	427	428
S:	184	185	200	202	203	201	204
	277	278	286	288	287	287	290

Class check list for CTL# 75



at O:	421	422	425	424	425	427	428
S:	182	183	186	187	188	187	190
	285	286	279	280	281	282	283



Class check list for CTL# 76

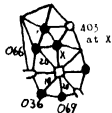
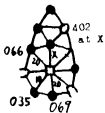
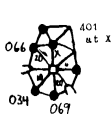
at Z: 604 605 606 607 615 616 617
 S: 273 \longrightarrow 272 \longrightarrow



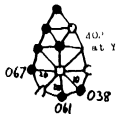
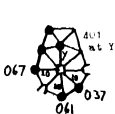
Class check list for CTL# 77

at U: 615 616 617
 S: 178 177 \longrightarrow

Class check list for CTL# 96



Class check list for CTL# 97



Class check list for CTL# 98

at Y: 401⁺ 402⁻
 S: 224 225



Class check list for CTL# 100

at X: 401 402 403
 S: 317 320⁺ 324



Class check list for CTL # 101

at X: 401 402 403
 S: 216 217 218



at X: 401 402 403
 S: 305 306 307

Class check list for CTL # 102

at Y: 401 402
 S: 226 227



at Y: 401 402
 S: 326 327

Class check list for CTL # 103

at Y: 401 402
 S: 213 214



at Y: 401 402
 S: 302 303

Class check list for CTL # 104

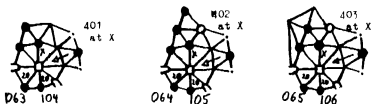
at X: 401 402 403
 S: 080 081 082

Class check list for CTL # 105

at Z: 402 403
 S: 230 230.1

Class check list for CTL # 106

at X: 401 402 403
 S: 323 324 325

Class check list for CTL# 107Class check list for CTL# 108

at X: 401 402 403
S: 063 064 065

Class check list for CTL# 109

at X: 401 402 403
S: 063 064 065

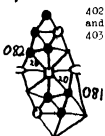
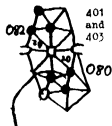
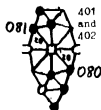
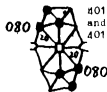
Class check list for CTL# 110

at X: 401 402 403
S: 084 085 087

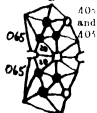
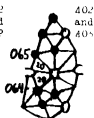
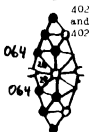
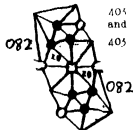
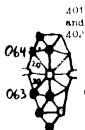
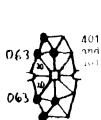
Class check list for CTL# 117

at X: 401 402 403 404 405 406 407 408
S: 086 087 120 122 123 119 121 126

Class check list for CTL # 121



Class check list for CTL # 122



Class check list for CTL # 128

$$\begin{array}{r} \text{at X: } 451 \quad 452 \\ \hline \text{S: } 229 \quad 228 \end{array}$$



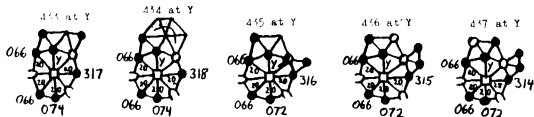
$$\begin{array}{r} \text{at X: } 451 \quad 452 \\ \hline \text{S: } 329 \quad 328 \end{array}$$

Class check list for CTL # 129

$$\begin{array}{r} \text{at X: } 451 \quad 452 \\ \hline \text{S: } 212 \quad 215 \end{array}$$



$$\begin{array}{r} \text{at X: } 451 \quad 452 \\ \hline \text{S: } 301 \quad 304 \end{array}$$

Class check list for CTL # 130*Class check list for CTL # 131

$$\begin{array}{r} \text{at X: } 451 \quad 452 \quad 453 \quad 454 \quad 455 \quad 456 \quad 457 \\ \hline \text{S: } 317 \quad 318 \quad 316 \quad 315 \quad 314 \end{array}$$

Class check list for CTL # 132

$$\begin{array}{r} \text{at Y: } 451 \quad 452 \quad 453 \quad 454 \quad 455 \quad 456 \quad 457 \\ \hline \text{S: } 219 \quad \longrightarrow \quad 220 \quad 221 \end{array}$$



$$\begin{array}{r} \text{at Y: } 451 \quad 452 \quad 453 \quad 454 \quad 455 \quad 456 \quad 457 \\ \hline \text{S: } 310 \quad \longrightarrow \quad 311 \quad 312 \end{array}$$

Class check list for CTL# 114

at S: 451 452 453 454 455 456 457 458 459 460 461 462 463 464
 S: 116 116 117 116 112 114 115 110 114 115 111 113 109 125

Class check list for CTL# 116

at U: 466 467 468 469 471 472 473 474 475 476 477 478 479 480 481
 S: 090 091 093 092 093 → 094 095 096 097 098 099 100 101

Class check list for CTL# 139

at Q: 580 591 592 595 611 612 613 615 616 617
 S: 222 223 →

Class check list for CTL# 142

at P: 401 402
 S: 139 140

Class check list for CTL# 145

at P: 401 402
 S: 133 134

Class check list for CTL# 144

at P: 401 402
 S: 147 148

Class check list for CTL# 146

at X: 431 432

S: 132 135

Class check list for CTL# 147

at X: 433 432

S: 150 147

Class check list for CTL# 148

at N: 433 434 435 436

S: 142 → 143

Class check list for CTL# 149

at Y: 433 434 435 436 437

S: 136 → 137 138