Number of vertices n = 9. Adjacencies of Graph

- 1. vertex 1 adjacent to 2 4 5 8 9
- 2. vertex 2 adjacent to 1 3 5 6 9
- 3. vertex 3 adjacent to 2 4 6 7 9
- 4. vertex 4 adjacent to 1 3 7 8 9
- 5. vertex 5 adjacent to 1 2 6 8 9
- 6. vertex 6 adjacent to 2 3 5 7 9
- 7. vertex 7 adjacent to 3 4 6 8 9
- 8. vertex 8 adjacent to 1 4 5 7 9
- 9. vertex 9 adjacent to 1 2 3 4 5 6 7 8

Size of automorphism group of the graph=16

Full group: |Aut(polytope)| = 4096

Restricted group: $|Aut(G) \times switch| = 4096$

Number of orbits for the full group: 125

List of orbits of facets for the full group: Total number of orbits = 125 Total number of facets = 389104

1. Inequality 1 with incidence 192 and stabilizer of size 128. Orbit size is 32 nature: 3-cycle inequality, C=[5, 9, 2] F=[5, 9]

```
(1,2):0
          (1,4):0
                    (1,5):0
                              (1,8):0
                                        (1,9):0
                                                 (2,3):0
(2,5):1
          (2,6):0
                    (2,9):1
                              (3,4):0
                                       (3,6):0
                                                 (3,7):0
(3,9):0
          (4,7):0
                    (4,8):0
                              (4,9):0
                                       (5,6):0
                                                 (5,8):0
(5,9):-1
          (6,7):0
                    (6,9):0
                              (7,8):0
                                        (7,9):0
                                                 (8,9):0
```

2. Inequality 2 with incidence 192 and stabilizer of size 128. Orbit size is 32 nature: 3-cycle inequality, C=[2, 9, 1] F=[2, 9]

(1,2):1	(1,4):0	(1,5):0	(1,8):0	(1,9):1	(2,3):0
(2,5):0	(2,6):0	(2,9):-1	(3,4):0	(3,6):0	(3,7):0
(3,9):0	(4,7):0	(4,8):0	(4,9):0	(5,6):0	(5,8):0
(5,9):0	(6,7):0	(6,9):0	(7,8):0	(7,9):0	(8,9):0

3. Inequality 3 with incidence 192 and stabilizer of size 128. Orbit size is 32 nature: 3-cycle inequality, C=[1, 8, 4] F=[1, 8]

```
(1,5):0
                                        (1,9):0
                                                  (2,3):0
(1,2):0
         (1,4):1
                             (1,8): -1
(2,5):0
         (2,6):0
                   (2,9):0
                              (3,4):0
                                        (3,6):0
                                                  (3,7):0
(3,9):0
         (4,7):0
                   (4,8):1
                              (4,9):0
                                        (5,6):0
                                                  (5,8):0
(5,9):0
                   (6,9):0
                              (7,8):0
                                        (7,9):0
                                                  (8,9):0
         (6,7):0
```

4. Inequality 4 with incidence 128 and stabilizer of size 256. Orbit size is 16 nature: 4-cycle inequality, C=[1, 4, 3, 2] F=[1, 4]

```
(1,2):1
         (1,4):-1
                    (1,5):0
                              (1,8):0
                                        (1,9):0
                                                  (2,3):1
(2,5):0
          (2,6):0
                    (2,9):0
                              (3,4):1
                                        (3,6):0
                                                  (3,7):0
(3,9):0
          (4,7):0
                    (4,8):0
                              (4,9):0
                                       (5,6):0
                                                 (5,8):0
(5,9):0
          (6,7):0
                    (6,9):0
                              (7,8):0
                                        (7,9):0
                                                  (8,9):0
```

5. Inequality 5 with incidence 80 and stabilizer of size 32. Orbit size is 128 nature: 5-cycle inequality, C=[4, 8, 5, 2, 3] F=[4, 8]

```
(1,2):0
         (1,4):0
                    (1,5):0
                              (1,8):0
                                        (1,9):0
                                                  (2,3):1
(2,5):1
         (2,6):0
                    (2,9):0
                                        (3,6):0
                              (3,4):1
                                                  (3,7):0
(3,9):0
         (4,7):0
                   (4,8): -1
                              (4,9):0
                                        (5,6):0
                                                  (5,8):1
(5,9):0
         (6,7):0
                    (6,9):0
                              (7,8):0
                                        (7,9):0
                                                  (8,9):0
```

6. Inequality 6 with incidence 76 and stabilizer of size 4. Orbit size is 1024 nature: unknown

```
(2,3):0
(1,2):0
          (1,4):1
                     (1,5):1
                               (1,8): -1
                                          (1,9):1
(2,5):0
                                                    (3,7):0
          (2,6):0
                     (2,9):0
                               (3,4):0
                                          (3,6):0
(3,9):0
                                                    (5,8):1
          (4,7):1
                    (4,8):0
                               (4,9):0
                                         (5,6): -1
(5,9):-1
                    (6,9):0
                               (7,8):1
                                          (7,9):-1
                                                    (8,9):1
          (6,7):1
```

7. Inequality 7 with incidence 72 and stabilizer of size 4. Orbit size is 1024 nature: unknown

```
(1,2):0
          (1,4):-1
                     (1,5): -1
                               (1,8):1
                                         (1,9):1
                                                    (2,3):0
(2,5):0
          (2,6):0
                     (2,9):0
                               (3,4):0
                                         (3,6):0
                                                    (3,7):0
(3,9):0
                                                    (5,8):0
          (4,7):-1
                     (4,8):1
                               (4,9):1
                                         (5,6):1
          (6,7):1
(5,9):0
                     (6,9):0
                               (7,8):1
                                         (7,9):1
                                                    (8,9):-1
```

8. Inequality 8 with incidence 72 and stabilizer of size 8. Orbit size is 512 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5):0
                               (1,8):1
                                          (1,9):-1
                                                    (2,3):0
                                                    (3,7):0
(2,5):0
                                          (3,6):0
          (2,6): -1
                     (2,9):0
                               (3,4):0
(3,9):0
                               (4,9):1
                                          (5,6):0
                                                    (5,8):0
          (4,7):1
                     (4,8):-1
(5,9):0
          (6,7):1
                     (6,9):0
                               (7,8):1
                                          (7,9):-1
                                                    (8,9):1
```

9. Inequality 9 with incidence 68 and stabilizer of size 4. Orbit size is 1024 nature: unknown

```
(1,2):1
           (1,4):1
                     (1,5):-1
                                 (1,8):0
                                           (1,9):-1
                                                      (2,3):0
(2,5):1
                                           (3,6):1
                                                      (3,7):1
           (2,6): -1
                      (2,9):1
                                 (3,4):1
                                                      (5,8):0
(3,9):-1
           (4,7):-1
                      (4,8):0
                                 (4,9):1
                                           (5,6):1
                                                      (8,9):0
(5,9): -1
                      (6,9):2
           (6,7):-1
                                 (7,8):0
                                           (7,9):1
```

10. Inequality 10 with incidence 60 and stabilizer of size 4. Orbit size is 1024 nature: unknown

```
(1,2):0
          (1,4):0
                     (1,5):0
                                (1,8):0
                                          (1,9):0
                                                    (2,3):1
(2,5):1
          (2,6): -1
                     (2,9):-1
                               (3,4):1
                                          (3,6):1
                                                    (3,7):1
(3,9):0
                                          (5,6):1
                                                    (5,8):-1
          (4,7):-1
                     (4,8):1
                                (4,9):1
(5,9):1
          (6,7):0
                     (6,9):-1
                                (7,8):1
                                          (7,9):1
                                                    (8,9):-1
```

11. Inequality 11 with incidence 60 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):0
           (1,4):1
                     (1,5):1
                                (1,8): -1
                                           (1,9):1
                                                      (2,3):0
(2,5):0
           (2,6):0
                     (2,9):0
                                (3,4):1
                                           (3,6):1
                                                      (3,7):-1
(3,9):1
           (4,7):1
                     (4,8):0
                                (4,9):-1
                                                      (5,8):1
                                           (5,6):-1
(5,9):-1
           (6,7):1
                     (6,9):-1
                                (7,8):1
                                           (7,9):0
                                                      (8,9):1
```

12. Inequality 12 with incidence 56 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5): -1
                                (1,8):1
                                           (1,9):0
                                                     (2,3):0
(2,5):1
          (2,6): -1
                     (2,9):-1
                                (3,4):0
                                          (3,6):0
                                                     (3,7):0
(3,9):0
                                                     (5,8):1
          (4,7):1
                     (4,8):-1
                                (4,9):1
                                          (5,6):0
                                                     (8,9):0
(5,9):1
          (6,7):1
                     (6,9):0
                                (7,8):1
                                          (7,9):-1
```

13. Inequality 13 with incidence 56 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):1
          (1,4):-1
                     (1,5):1
                                (1,8):0
                                          (1,9):1
                                                     (2,3):1
(2,5):0
                                                     (3,7):-1
          (2,6): -1
                     (2,9):-1
                                (3,4):1
                                          (3,6):1
(3,9):0
                                (4,9):1
                                                     (5,8):0
          (4,7):1
                     (4,8):0
                                          (5,6):1
                     (6,9):0
(5,9):0
          (6,7):1
                                (7,8):0
                                          (7,9): -1
                                                     (8,9):0
```

14. Inequality 14 with incidence 52 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5):0
                                (1,8):-1
                                           (1,9):1
                                                     (2,3):0
(2,5):1
                                           (3,6):0
                                                     (3,7):0
          (2,6): -1
                     (2,9):-1
                                (3,4):0
(3,9):0
                                                     (5,8):1
          (4,7):1
                     (4,8):0
                                (4,9):0
                                           (5,6):0
(5,9):0
          (6,7):1
                     (6,9):0
                                (7,8):1
                                          (7,9):-1
                                                     (8,9):1
```

15. Inequality 15 with incidence 52 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):1
          (1,4):-1
                     (1,5):0
                                (1,8):1
                                          (1,9):1
                                                    (2,3):1
(2,5):0
                                                    (3,7):0
          (2,6): -1
                     (2,9):-1
                               (3,4):1
                                          (3,6):0
(3,9):0
                     (4,8):0
                                                    (5,8):0
          (4,7):1
                               (4,9):1
                                          (5,6):0
(5,9):0
          (6,7):1
                     (6,9):0
                                (7,8):1
                                          (7,9):-1
                                                    (8,9):0
```

16. Inequality 16 with incidence 50 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):0
          (1,4):0
                     (1,5):0
                               (1,8):0
                                          (1,9):0
                                                    (2,3):1
(2,5):1
                                                    (3,7):0
          (2,6): -1
                     (2,9):-1
                               (3,4):1
                                          (3,6):0
(3,9):0
                               (4,9):1
                                                    (5,8):1
          (4,7):1
                     (4,8):-1
                                          (5,6):0
(5,9):0
                     (6,9):0
                                (7,8):1
                                          (7,9):-1
                                                    (8,9):1
          (6,7):1
```

17. Inequality 17 with incidence 50 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):1
          (1,4):0
                     (1,5):0
                                (1,8):1
                                          (1,9):0
                                                     (2,3):1
(2,5):0
          (2,6): -1
                     (2,9):-1
                                (3,4):1
                                          (3,6):0
                                                     (3,7):0
(3,9):0
                                                     (5,8):0
          (4,7):1
                     (4,8): -1
                                (4,9):1
                                          (5,6):0
                                                    (8,9):1
(5,9):0
          (6,7):1
                     (6,9):0
                                (7,8):1
                                          (7,9):-1
```

18. Inequality 18 with incidence 49 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):0
                      (1,5):1
                                 (1,8):-1
                                           (1,9):1
                                                      (2,3):1
(2,5):1
           (2,6): -1
                      (2,9):0
                                 (3,4):1
                                           (3,6):1
                                                      (3,7):-1
(3,9):0
                                                      (5,8):1
           (4,7):1
                      (4,8): -1
                                 (4,9):1
                                           (5,6):0
(5,9):-1
                      (6,9):-1
                                 (7,8):1
                                           (7,9):0
                                                      (8,9):2
           (6,7):1
```

19. Inequality 19 with incidence 48 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):0
          (1,4):0
                     (1,5):0
                               (1,8):0
                                          (1,9):0
                                                    (2,3):1
(2,5):1
          (2,6):0
                     (2,9):0
                                          (3,6):0
                                                    (3,7):0
                               (3,4):1
(3,9):0
                                                    (5,8):1
          (4,7):1
                    (4,8):-1
                               (4,9):1
                                         (5,6):-1
(5,9):-1
                     (6,9):0
          (6,7):1
                               (7,8):1
                                         (7,9):-1
                                                    (8,9):1
```

20. Inequality 20 with incidence 48 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,9):0
(1,2): -1
           (1,4):1
                      (1,5):1
                                (1,8): -1
                                                      (2,3):1
(2,5):1
           (2,6):0
                      (2,9):1
                                (3,4):1
                                           (3,6):1
                                                      (3,7):1
                                                      (5,8):1
(3,9): -2
           (4,7):0
                      (4,8):1
                                (4,9):1
                                           (5,6): -1
(5,9):0
           (6,7):-1
                      (6,9):1
                                (7,8):-1
                                           (7,9):1
                                                      (8,9):0
```

21. Inequality 21 with incidence 48 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):0
          (1,4):1
                     (1,5):1
                                (1,8):0
                                          (1,9):0
                                                     (2,3):1
(2,5):1
          (2,6):0
                     (2,9):0
                               (3,4):0
                                          (3,6):1
                                                     (3,7):-1
                                          (5,6): -1
(3,9):1
          (4,7):1
                                (4,9):1
                                                     (5,8):1
                     (4,8):-1
(5,9): -2
                               (7,8):1
                                          (7,9):0
                                                     (8,9):1
          (6,7):1
                     (6,9):-1
```

22. Inequality 22 with incidence 48 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):0
           (1,4):1
                     (1,5):1
                               (1,8):1
                                          (1,9):1
                                                    (2,3):1
(2,5):1
           (2,6):0
                     (2,9):0
                               (3,4):0
                                         (3,6):0
                                                    (3,7):1
(3,9):0
          (4,7):-1
                     (4,8):0
                               (4,9):0
                                         (5,6):0
                                                    (5,8):-1
(5,9):-1
           (6,7):0
                     (6,9):0
                               (7,8):1
                                         (7,9):1
                                                    (8,9):-1
```

23. Inequality 23 with incidence 47 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,4):0
(1,2):1
                     (1,5): -1
                                (1,8):1
                                           (1,9):1
                                                     (2,3):1
                                                     (3,7):0
(2,5):1
          (2,6): -1
                     (2,9): -2
                                (3,4):1
                                           (3,6):0
(3,9):0
                                (4,9):1
                                                     (5,8):1
          (4,7):1
                     (4,8): -1
                                           (5,6):0
                     (6,9):0
(5,9):1
                                (7,8):1
                                           (7,9): -1
                                                     (8,9):0
          (6,7):1
```

24. Inequality 24 with incidence 47 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):1
                      (1,5):0
                                 (1,8):1
                                           (1,9):1
                                                      (2,3):1
(2,5):1
                                                      (3,7):1
           (2,6):-1
                      (2,9):2
                                 (3,4):0
                                           (3,6):1
(3,9):-1
                                                      (5,8):1
           (4,7):1
                      (4,8):-1
                                (4,9):-1
                                           (5,6):0
(5,9):0
                                                      (8,9):-1
           (6,7):-1
                      (6,9):1
                                 (7,8):0
                                           (7,9):1
```

25. Inequality 25 with incidence 46 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
           (1,4):1
                      (1,5):0
                                (1,8): -1
                                           (1,9):1
                                                      (2,3):1
                                                      (3,7):-1
(2,5):1
          (2,6): -1
                     (2,9): -2
                                 (3,4):0
                                           (3,6):1
(3,9):1
                                           (5,6):0
                                                      (5,8):1
          (4,7):1
                     (4,8):0
                                 (4,9):0
(5,9):0
           (6,7):1
                     (6,9): -1
                                 (7,8):1
                                           (7,9):0
                                                      (8,9):1
```

26. Inequality 26 with incidence 45 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
          (1,4):-1
                     (1,5): -1
                                (1,8):0
                                          (1,9):1
                                                     (2,3):1
(2,5):1
          (2,6):0
                     (2,9):-1
                                (3,4):1
                                          (3,6):0
                                                     (3,7):0
          (4,7):1
(3,9):0
                                (4,9):2
                                                     (5,8):1
                     (4,8):-1
                                          (5,6):-1
(5,9):0
                     (6,9):0
                                (7,8):1
                                          (7,9):-1
                                                     (8,9):1
          (6,7):1
```

27. Inequality 27 with incidence 45 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):0
           (1,4):1
                     (1,5):1
                                (1,8): -1
                                           (1,9):1
                                                      (2,3):1
(2,5):1
          (2,6):0
                     (2,9):0
                                (3,4):0
                                           (3,6):1
                                                      (3,7):-1
(3,9):1
          (4,7):1
                     (4,8):0
                                (4,9):0
                                           (5,6): -1
                                                      (5,8):1
(5,9): -2
          (6,7):1
                     (6,9):-1
                                (7,8):1
                                           (7,9):0
                                                      (8,9):1
```

28. Inequality 28 with incidence 45 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):1
                                 (1,8):0
                                           (1,9):1
                                                      (2,3):1
(2,5):1
           (2,6): -1
                      (2,9):2
                                 (3,4):0
                                           (3,6):1
                                                      (3,7):1
                                                      (5,8):1
(3,9):-1
           (4,7):1
                     (4,8):-1
                                (4,9):-1
                                           (5,6):0
(5,9): -1
                                 (7,8):0
                                           (7,9):1
                                                      (8,9):0
           (6,7):-1
                      (6,9):1
```

29. Inequality 29 with incidence 44 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
\overline{(1,2)}: -1
            (1,4):1
                       (1,5): -1
                                  (1,8):1
                                              (1,9):0
                                                         (2,3):1
(2,5):0
                                                         (3,7):0
           (2,6):1
                       (2,9):-1
                                  (3,4):1
                                              (3,6):0
(3,9):0
                                                         (5,8):1
           (4,7):-1
                       (4,8):0
                                  (4,9):1
                                             (5,6):-1
(5,9):1
                                                         (8,9):-1
           (6,7):1
                       (6,9):1
                                  (7,8):1
                                              (7,9):1
```

30. Inequality 30 with incidence 44 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):0
                                 (1,8):1
                                            (1,9):1
                                                       (2,3):1
(2,5):1
           (2,6):0
                      (2,9):1
                                 (3,4):0
                                            (3,6):1
                                                       (3,7):1
(3,9):-1
           (4,7):1
                      (4,8):-1
                                 (4,9):-1
                                            (5,6): -1
                                                       (5,8):1
(5,9):1
           (6,7):-1
                      (6,9):1
                                 (7,8):0
                                            (7,9):1
                                                       (8,9):-1
```

31. Inequality 31 with incidence 43 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):1
                      (1,5):1
                                (1,8):-1
                                           (1,9):0
                                                      (2,3):1
(2,5):1
           (2,6): -1
                      (2,9):0
                                 (3,4):1
                                           (3,6):1
                                                      (3,7):-1
(3,9):0
                                                      (5,8):1
                                 (4,9):1
           (4,7):1
                      (4,8):0
                                           (5,6):0
(5,9):-1
                                                      (8,9):1
           (6,7):1
                     (6,9):-1
                                 (7,8):1
                                           (7,9):0
```

32. Inequality 32 with incidence 43 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):1
                      (1,5):1
                                 (1,8):0
                                           (1,9):1
                                                     (2,3):1
(2,5):1
          (2,6): -1
                      (2,9):0
                                           (3,6):1
                                                     (3,7):0
                                (3,4):1
(3,9):1
                                                     (5,8):1
          (4,7):0
                     (4,8):-1
                                (4,9):-1
                                           (5,6):0
(5,9):-1
           (6,7):1
                     (6,9):-1
                                 (7,8):1
                                           (7,9):0
                                                     (8,9):1
```

33. Inequality 33 with incidence 43 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                     (1,5):0
                                (1,8):0
                                           (1,9):0
                                                     (2,3):1
(2,5):1
           (2,6):0
                     (2,9):1
                                (3,4):1
                                           (3,6):1
                                                     (3,7):0
                                                     (5,8):1
(3,9):-1
           (4,7):1
                     (4,8):1
                                (4,9):0
                                           (5,6): -1
(5,9): -1
                     (6,9):1
                                (7,8):-1
                                           (7,9):1
                                                      (8,9):1
           (6,7):-1
```

34. Inequality 34 with incidence 43 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
\overline{(1,2)}: -1
            (1,4):1
                       (1,5):0
                                  (1,8):1
                                              (1,9):1
                                                         (2,3):1
(2,5):1
            (2,6):0
                       (2,9):1
                                  (3,4):0
                                                         (3,7):1
                                              (3,6):1
(3,9):-1
                                             (5,6): -1
                                                         (5,8):1
            (4,7):1
                       (4,8):0
                                  (4,9):0
(5,9):1
                                                         (8,9):-1
           (6,7):-1
                       (6,9):1
                                  (7,8):-1
                                              (7,9):0
```

35. Inequality 35 with incidence 43 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2): -1
           (1,4):1
                     (1,5):1
                                (1,8):0
                                           (1,9):1
                                                      (2,3):1
                                                     (3,7):-1
(2,5):1
           (2,6):1
                     (2,9):2
                                (3,4):1
                                           (3,6):0
                                                      (5,8):1
(3,9):-1
           (4,7):2
                     (4,8):-1
                                (4,9):1
                                          (5,6): -1
(5,9): -2
           (6,7):1
                     (6,9):-1
                                (7,8):1
                                          (7,9):-1
                                                      (8,9):1
```

36. Inequality 36 with incidence 42 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):-1
           (1,4):1
                     (1,5):2
                                (1,8): -1
                                           (1,9):1
                                                      (2,3):1
(2,5):1
           (2,6):0
                     (2,9):1
                                (3,4):1
                                           (3,6):0
                                                      (3,7):-1
           (4,7):2
                     (4,8): -1
(3,9):-1
                                (4,9):1
                                                      (5,8):2
                                           (5,6):-1
                                           (7,9):-2
(5,9):-2
           (6,7):1
                     (6,9):0
                                (7,8):2
                                                      (8,9):2
```

37. Inequality 37 with incidence 42 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):-1
           (1,4):1
                      (1,5):1
                                (1,8):0
                                          (1,9):1
                                                     (2,3):1
(2,5):1
          (2,6): -1
                      (2,9):2
                                (3,4):1
                                          (3,6):1
                                                    (3,7):0
(3,9):-1
                                                    (5,8):1
           (4,7):1
                     (4,8):-1
                                (4,9):0
                                          (5,6):0
                                                    (8,9):0
(5,9):-1
          (6,7):-1
                      (6,9):1
                                (7,8):0
                                          (7,9):0
```

38. Inequality 38 with incidence 41 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):0
                      (1,5):1
                                (1,8):-1
                                           (1,9):1
                                                      (2,3):1
(2,5):1
          (2,6):-1
                      (2,9):0
                                 (3,4):1
                                           (3,6):0
                                                      (3,7):0
(3,9):0
                                                      (5,8):1
           (4,7):1
                     (4,8):-1
                                 (4,9):1
                                           (5,6):0
(5,9):-1
                      (6,9):0
                                 (7,8):1
                                           (7,9):-1
                                                      (8,9):2
           (6,7):1
```

39. Inequality 39 with incidence 41 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(2,3):0
(1,2):1
          (1,4):1
                     (1,5):0
                                (1,8):-1
                                           (1,9):1
(2,5):1
                                                     (3,7):-1
          (2,6): -1
                     (2,9):-1
                                (3,4):1
                                           (3,6):1
                                                     (5,8):1
(3,9):1
          (4,7):1
                     (4,8):0
                                (4,9):-1
                                           (5,6):0
(5,9):0
                     (6,9):-1
          (6,7):1
                                (7,8):1
                                           (7,9):0
                                                     (8,9):1
```

40. Inequality 40 with incidence 41 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):1
                                (1,8):0
                                           (1,9):1
                                                     (2,3):1
(2,5):1
           (2,6): -1
                      (2,9):0
                                (3,4):1
                                           (3,6):1
                                                     (3,7):-1
(3,9):0
                                                     (5,8):1
           (4,7):1
                     (4,8):-1
                                (4,9):0
                                           (5,6):0
(5,9):-1
           (6,7):1
                     (6,9):-1
                                (7,8):1
                                           (7,9):0
                                                     (8,9):1
```

41. Inequality 41 with incidence 41 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):0
           (1,4):1
                      (1,5):1
                                (1,8):0
                                           (1,9):0
                                                     (2,3):1
(2,5):1
          (2,6): -1
                     (2,9):-1
                                (3,4):0
                                          (3,6):1
                                                     (3,7):-1
(3,9):1
           (4,7):1
                                (4,9):1
                                                     (5,8):1
                     (4,8):-1
                                          (5,6):0
                                           (7,9):0
                                                     (8,9):1
(5,9):-1
           (6,7):1
                     (6,9):-1
                                (7,8):1
```

42. Inequality 42 with incidence 41 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2): -1
           (1,4):1
                     (1,5):1
                                (1,8): -1
                                           (1,9):0
                                                      (2,3):1
(2,5):1
           (2,6):0
                     (2,9):1
                                (3,4):1
                                           (3,6):1
                                                      (3,7):0
                                                      (5,8):1
(3,9):-1
           (4,7):1
                     (4,8):1
                                (4,9):0
                                           (5,6): -1
(5,9):0
           (6,7):-1
                     (6,9):1
                                (7,8):-1
                                           (7,9):1
                                                      (8,9):0
```

43. Inequality 43 with incidence 40 and stabilizer of size 4. Orbit size is 1024 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5): -1
                                (1,8):1
                                           (1,9):0
                                                      (2,3):1
(2,5):2
          (2,6): -2
                     (2,9): -2
                                (3,4):1
                                           (3,6):1
                                                      (3,7):-1
(3,9):0
                                                      (5,8):1
          (4,7):2
                     (4,8): -2
                                (4,9):2
                                           (5,6):1
(5,9):1
                     (6,9):-1
           (6,7):1
                                (7,8):1
                                           (7,9): -1
                                                      (8,9):1
```

44. Inequality 44 with incidence 40 and stabilizer of size 4. Orbit size is 1024 nature: unknown

```
(2,3):2
(1,2):0
          (1,4):0
                     (1,5):0
                                (1,8):0
                                          (1,9):0
(2,5):2
          (2,6): -2
                     (2,9): -2
                                (3,4):2
                                                     (3,7):-1
                                          (3,6):1
(3,9):0
                                                     (5,8):2
          (4,7):2
                     (4,8): -2
                                (4,9):2
                                          (5,6):1
(5,9):1
                                          (7,9):-1
                                                     (8,9):1
          (6,7):1
                     (6,9):-1
                                (7,8):1
```

45. Inequality 45 with incidence 40 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):2
          (1,4):-2
                     (1,5):1
                                (1,8):1
                                           (1,9):2
                                                     (2,3):2
                                                     (3,7):-1
(2,5):0
          (2,6): -2
                     (2,9): -2
                                (3,4):2
                                          (3,6):1
(3,9):0
                                (4,9):2
                                                     (5,8):0
          (4,7):2
                     (4,8):0
                                          (5,6):1
(5,9):0
          (6,7):1
                     (6,9): -1
                                (7,8):1
                                          (7,9):-1
                                                     (8,9):0
```

46. Inequality 46 with incidence 40 and stabilizer of size 4. Orbit size is 1024 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):2
                                          (1,9):1
                                                     (2,3):2
                                (1,8):1
(2,5):2
           (2,6):0
                     (2,9):1
                                (3,4):1
                                          (3,6):0
                                                     (3,7):2
           (4,7): -2
(3,9):-1
                     (4,8):1
                                (4,9):1
                                          (5,6):0
                                                    (5,8): -2
(5,9):-2
                     (6,9):0
                                (7,8):2
                                          (7,9):2
                                                    (8,9):-2
           (6,7):0
```

47. Inequality 47 with incidence 40 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):0
           (1,4):1
                      (1,5):1
                                (1,8): -1
                                           (1,9): -1
                                                       (2,3):1
(2,5):1
           (2,6): -1
                      (2,9):1
                                (3,4):0
                                            (3,6):1
                                                       (3,7):1
(3,9):-1
           (4,7):-1
                      (4,8):1
                                (4,9):1
                                            (5,6):0
                                                       (5,8):1
(5,9):1
           (6,7):-1
                      (6,9):1
                                 (7,8):0
                                            (7,9):1
                                                      (8,9):-1
```

48. Inequality 48 with incidence 40 and stabilizer of size 16. Orbit size is 256 nature: Negative type inequality, b=[1, 1, -1, 1, 1, 1, -1, 1, -2]

```
(1,2): -1
                      (1,5):1
                                 (1,8):1
                                           (1,9):2
                                                      (2,3):1
           (1,4):-1
(2,5):1
                      (2,9):2
           (2,6): -1
                                 (3,4):1
                                           (3,6):1
                                                      (3,7):1
(3,9): -2
                      (4,8):1
                                 (4,9):2
                                           (5,6):1
                                                      (5,8):-1
           (4,7): -1
(5,9): -2
           (6,7):-1
                      (6,9):2
                                 (7,8):1
                                           (7,9):2
                                                      (8,9): -2
```

49. Inequality 49 with incidence 39 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(2,3) : 1
(1,2):1
           (1,4):1
                                (1,8):1
                                           (1,9):1
                     (1,5): -2
(2,5):2
          (2,6): -2
                                                      (3,7):-1
                     (2,9): -2
                                (3,4):1
                                           (3,6):1
(3,9):0
          (4,7):2
                     (4,8):-1
                                (4,9):1
                                           (5,6):1
                                                      (5,8):1
                                           (7,9):-1
(5,9):2
          (6,7):1
                     (6,9):-1
                                (7,8):1
                                                      (8,9):0
```

50. Inequality 50 with incidence 39 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
\overline{(1,2)}: -1
           (1,4):1
                                                          (2,3):2
                       (1,5):1
                                  (1,8): -1
                                              (1,9):0
            (2,6):1
                       (2,9):1
                                   (3,4):2
                                              (3,6): -1
(2,5):1
                                                          (3,7):-1
(3,9): -2
           (4,7):2
                       (4,8): -1
                                   (4,9):2
                                              (5,6): -1
                                                          (5,8):2
            (6,7):1
                                   (7,8):2
                                              (7,9): -2
(5,9):-1
                       (6,9):0
                                                          (8,9):2
```

51. Inequality 51 with incidence 39 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):0
                                           (1,9):1
                                                      (2,3):1
           (1,4):1
                      (1,5):1
                                 (1,8):-1
(2,5):1
           (2,6):-1
                      (2,9):-1
                                 (3,4):0
                                           (3,6):1
                                                      (3,7):-1
(3,9):1
           (4,7):1
                      (4,8):0
                                 (4,9):0
                                           (5,6):0
                                                      (5,8):1
(5,9):-1
           (6,7):1
                      (6,9):-1
                                 (7,8):1
                                           (7,9):0
                                                      (8,9):1
```

52. Inequality 52 with incidence 39 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
          (1,4):1
                     (1,5):0
                                (1,8):1
                                          (1,9): -1
                                                     (2,3):1
(2,5):0
          (2,6):1
                    (2,9):-1
                               (3,4):0
                                          (3,6): -1
                                                     (3,7):1
(3,9):1
                                                     (5,8):1
          (4,7):1
                    (4,8):-1
                               (4,9):1
                                          (5,6):1
(5,9):0
          (6,7):1
                     (6,9):0
                               (7,8):0
                                          (7,9):-1
                                                     (8,9):1
```

53. Inequality 53 with incidence 39 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
          (1,4):1
                     (1,5):1
                                (1,8):0
                                           (1,9):1
                                                      (2,3):1
          (2,6):0
(2,5):1
                     (2,9):1
                                (3,4):0
                                           (3,6):1
                                                      (3,7):1
                                (4,9): -1
(3,9):-1
          (4,7):1
                     (4,8): -1
                                                      (5,8):1
                                          (5,6): -1
(5,9):0
           (6,7):0
                     (6,9):0
                                (7,8):1
                                           (7,9):1
                                                     (8,9):-1
```

54. Inequality 54 with incidence 39 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):0
          (1,4):1
                     (1,5):-1
                                (1,8):1
                                          (1,9):1
                                                     (2,3):1
(2,5):1
          (2,6): -1
                     (2,9):-1
                                (3,4):1
                                          (3,6):1
                                                    (3,7):-1
(3,9):0
                                                     (5,8):1
          (4,7):1
                     (4,8):-1
                                (4,9):0
                                          (5,6):0
(5,9):1
          (6,7):1
                                          (7,9):0
                                                     (8,9):0
                     (6,9):-1
                                (7,8):1
```

55. Inequality 55 with incidence 38 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
          (1,4):1
                     (1,5):1
                                (1,8): -1
                                           (1,9):0
                                                      (2,3):1
(2,5):1
          (2,6):0
                     (2,9):-1
                                (3,4):1
                                           (3,6):1
                                                      (3,7):0
(3,9):1
                                (4,9):0
                                                      (5,8):1
          (4,7):0
                     (4,8):0
                                           (5,6): -1
(5,9):0
          (6,7):1
                     (6,9): -1
                                (7,8):1
                                           (7,9):0
                                                      (8,9):1
```

56. Inequality 56 with incidence 38 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2): -2
           (1,4):2
                      (1,5):2
                                (1,8):0
                                           (1,9):2
                                                      (2,3):2
(2,5):1
           (2,6): -1
                      (2,9):2
                                (3,4):2
                                           (3,6):2
                                                     (3,7):0
                                (4,9):0
                                                     (5,8):1
(3,9): -2
           (4,7):1
                     (4,8):-1
                                           (5,6):-1
                                           (7,9):0
                                                      (8,9):0
(5,9):-1
           (6,7):-1
                      (6,9):1
                                (7,8):0
```

57. Inequality 57 with incidence 38 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
          (1,4):0
                    (1,5): -1
                               (1,8):1
                                          (1,9):1
                                                    (2,3):1
                                         (3,6):0
(2,5):1
          (2,6):0
                    (2,9):-1
                               (3,4):1
                                                    (3,7):1
(3,9):1
                                         (5,6): -1
                                                    (5,8):1
          (4,7):0
                    (4,8): -1
                               (4,9):0
                                                    (8,9):0
(5,9):0
          (6,7):1
                    (6,9):0
                               (7,8):1
                                         (7,9):-1
```

58. Inequality 58 with incidence 38 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):0
                                (1,8):1
                                          (1,9):1
                                                     (2,3):1
                                                     (3,7):-1
(2,5):1
          (2,6): -1
                      (2,9):0
                                (3,4):1
                                          (3,6):1
(3,9):0
                                          (5,6):0
                                                     (5,8):1
           (4,7):1
                     (4,8):-1
                                (4,9):0
(5,9):0
           (6,7):1
                     (6,9):-1
                                           (7,9):0
                                                     (8,9):0
                                (7,8):1
```

59. Inequality 59 with incidence 38 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
\overline{(1,2)}: -1
           (1,4):1
                       (1,5):0
                                   (1,8):1
                                              (1,9):1
                                                          (2,3):1
(2,5):1
                                                         (3,7):1
           (2,6):-1
                       (2,9):0
                                  (3,4):1
                                              (3,6):0
(3,9):1
           (4,7):0
                       (4,8):-1
                                  (4,9):-1
                                              (5,6):0
                                                         (5,8):1
(5,9):0
                       (6,9):0
           (6,7):1
                                   (7,8):1
                                              (7,9):-1
                                                         (8,9):0
```

60. Inequality 60 with incidence 37 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):0
          (1,4):1
                     (1,5): -1
                                (1,8):1
                                          (1,9):1
                                                     (2,3):1
(2,5):1
                                                     (3,7):0
          (2,6):-1
                     (2,9):-1
                                (3,4):1
                                          (3,6):0
(3,9):0
                                (4,9):0
                                                     (5,8):1
          (4,7):1
                     (4,8):-1
                                          (5,6):0
(5,9):1
          (6,7):1
                     (6,9):0
                                (7,8):1
                                          (7,9):-1
                                                     (8,9):0
```

61. Inequality 61 with incidence 37 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
\overline{(1,2)}: -1
           (1,4):1
                       (1,5):1
                                  (1,8):0
                                             (1,9):1
                                                        (2,3):1
(2,5):1
           (2,6): -1
                       (2,9):0
                                  (3,4):1
                                             (3,6):0
                                                        (3,7):0
                      (4,8):-1
(3,9):0
           (4,7):1
                                  (4,9):0
                                             (5,6):0
                                                        (5,8):1
                                             (7,9):-1
                                                        (8,9):1
(5,9):-1
           (6,7):1
                       (6,9):0
                                  (7,8):1
```

62. Inequality 62 with incidence 37 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5): -2
                                (1,8):1
                                           (1,9):1
                                                     (2,3):1
(2,5):2
          (2,6): -2
                     (2,9): -2
                                (3,4):1
                                          (3,6):2
                                                     (3,7):-1
(3,9):1
                                                     (5,8):1
          (4,7):1
                     (4,8):-1
                                (4,9):0
                                          (5,6):1
(5,9):2
                     (6,9): -2
          (6,7):1
                                (7,8):1
                                          (7,9):0
                                                     (8,9):0
```

63. Inequality 63 with incidence 37 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -2
           (1,4):2
                      (1,5):1
                                (1,8): -1
                                            (1,9):0
                                                      (2,3):2
                      (2,9):2
(2,5):1
           (2,6): -1
                                 (3,4):1
                                            (3,6):2
                                                      (3,7):1
                                 (4,9):1
(3,9): -2
                                                      (5,8):1
           (4,7):1
                      (4,8):1
                                           (5,6): -1
(5,9):0
           (6,7): -2
                      (6,9):2
                                (7,8):-1
                                            (7,9):1
                                                      (8,9):0
```

64. Inequality 64 with incidence 37 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):1
                      (1,5):1
                                (1,8): -1
                                           (1,9):0
                                                     (2,3):1
(2,5):1
                                           (3,6):1
                                                     (3,7):0
          (2,6): -1
                      (2,9):0
                                 (3,4):1
(3,9):1
                                                     (5,8):1
           (4,7):0
                      (4,8):0
                                 (4,9):0
                                           (5,6):0
                     (6,9): -1
(5,9):-1
           (6,7):1
                                 (7,8):1
                                           (7,9):0
                                                     (8,9):1
```

65. Inequality 65 with incidence 37 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                     (1,5):1
                                (1,8): -1
                                           (1,9):0
                                                     (2,3):1
                                                     (3,7):0
(2,5):1
          (2,6): -1
                     (2,9):0
                                (3,4):1
                                           (3,6):0
(3,9):0
                                                     (5,8):1
           (4,7):1
                     (4,8):0
                                (4,9):1
                                           (5,6):0
(5,9):-1
           (6,7):1
                     (6,9):0
                                (7,8):1
                                          (7,9):-1
                                                     (8,9):1
```

66. Inequality 66 with incidence 37 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5):0
                               (1,8): -1
                                          (1,9):-1
                                                     (2,3):0
(2,5):1
                                                     (3,7):0
          (2,6): -1
                     (2,9):1
                               (3,4):1
                                          (3,6):1
(3,9):0
                     (4,8):1
                               (4,9):0
                                          (5,6):0
                                                     (5,8):1
          (4,7):1
(5,9):0
                               (7,8):-1
                                          (7,9):1
                                                     (8,9):0
          (6,7):-1
                     (6,9):1
```

67. Inequality 67 with incidence 37 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):1
          (1,4):-1
                     (1,5): -1
                                (1,8):1
                                           (1,9):0
                                                     (2,3):1
(2,5):1
          (2,6):0
                     (2,9):-1
                                (3,4):1
                                          (3,6):0
                                                     (3,7):1
(3,9):1
                                                     (5,8):1
          (4,7):0
                     (4,8):0
                                (4,9):0
                                          (5,6): -1
(5,9):0
          (6,7):1
                     (6,9):0
                                (7,8):1
                                          (7,9):-1
                                                     (8,9):1
```

68. Inequality 68 with incidence 37 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):2
                                (1,8):1
                                          (1,9):1
                                                     (2,3):2
(2,5):2
           (2,6): -1
                      (2,9):2
                                (3,4):1
                                          (3,6):1
                                                     (3,7):2
(3,9): -2
                                (4,9):1
                                                     (5,8): -2
           (4,7): -2
                      (4,8):1
                                          (5,6):1
(5,9):-3
           (6,7):0
                      (6,9):1
                                (7,8):2
                                           (7,9):2
                                                     (8,9): -2
```

69. Inequality 69 with incidence 37 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
                                                    (2,3):1
          (1,4):1
                     (1,5):0
                               (1,8):1
                                         (1,9):-1
(2,5):0
          (2,6):1
                                                    (3,7):0
                    (2,9):-1
                               (3,4):1
                                         (3,6):-1
(3,9):1
                                                    (5,8):1
          (4,7):1
                    (4,8):-1
                               (4,9):0
                                          (5,6):1
(5,9):0
                               (7,8):0
                     (6,9):0
                                          (7,9):0
                                                    (8,9):1
          (6,7):1
```

70. Inequality 70 with incidence 36 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,8): -1
(1,2):0
          (1,4):-1
                     (1,5):1
                                            (1,9):1
                                                       (2,3):2
(2,5):2
                                                      (3,7):-1
          (2,6): -2
                     (2,9): -2
                                (3,4):2
                                           (3,6):1
(3,9):0
                     (4,8): -2
                                (4,9):3
                                                      (5,8):2
          (4,7):2
                                           (5,6):1
(5,9):0
          (6,7):1
                     (6,9):-1
                                (7,8):1
                                           (7,9):-1
                                                       (8,9):2
```

71. Inequality 71 with incidence 36 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):1
           (1,4):1
                      (1,5):-1
                                 (1,8):0
                                            (1,9):-1
                                                       (2,3):1
(2,5):2
           (2,6): -2
                      (2,9):2
                                 (3,4):1
                                            (3,6):2
                                                       (3,7):2
(3,9): -2
           (4,7):-1
                      (4,8):0
                                 (4,9):1
                                                       (5,8):1
                                            (5,6):1
(5,9):-1
           (6,7):-1
                      (6,9):2
                                 (7,8):-1
                                                       (8,9):0
                                            (7,9):1
```

72. Inequality 72 with incidence 36 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):2
                                 (1,8): -1
                                             (1,9):1
                                                        (2,3):1
(2,5):1
           (2,6): -1
                      (2,9):0
                                  (3,4):1
                                             (3,6):2
                                                        (3,7):-1
(3,9):1
           (4,7):1
                      (4,8):-1
                                  (4,9):0
                                            (5,6): -1
                                                        (5,8):2
                                  (7,8):2
(5,9): -2
           (6,7):2
                      (6,9): -2
                                             (7,9):0
                                                        (8,9):2
```

73. Inequality 73 with incidence 35 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):1
                      (1,5):2
                                (1,8):-1
                                            (1,9):1
                                                      (2,3):1
(2,5):1
           (2,6):-1
                      (2,9):0
                                 (3,4):1
                                            (3,6):0
                                                      (3,7):0
(3,9):0
           (4,7):2
                                           (5,6):-1
                                                      (5,8):2
                     (4,8):-1
                                 (4,9):1
(5,9): -2
           (6,7):2
                      (6,9):0
                                 (7,8):2
                                           (7,9): -2
                                                      (8,9):2
```

74. Inequality 74 with incidence 35 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):0
                                (1,8):1
                                           (1,9):1
                                                     (2,3):1
(2,5):1
                                           (3,6):0
                                                     (3,7):0
          (2,6): -1
                     (2,9):0
                                (3,4):1
(3,9):0
                                                     (5,8):1
          (4,7):1
                     (4,8):-1
                                (4,9):0
                                           (5,6):0
(5,9):0
                                                     (8,9):0
          (6,7):1
                     (6,9):0
                                (7,8):1
                                          (7,9):-1
```

75. Inequality 75 with incidence 35 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
           (1,4):-1
                      (1,5): -1
                                 (1,8):2
                                            (1,9):1
                                                        (2,3):2
(2,5):1
           (2,6): -1
                      (2,9):1
                                 (3,4):1
                                            (3,6):2
                                                        (3,7):2
(3,9):-3
                                                        (5,8):2
           (4,7):0
                      (4,8):1
                                 (4,9):1
                                            (5,6): -1
                      (6,9):2
                                            (7,9):2
(5,9):1
           (6,7): -2
                                 (7,8): -2
                                                       (8,9):-1
```

76. Inequality 76 with incidence 35 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-2
           (1,4):2
                      (1,5):2
                                 (1,8):0
                                            (1,9):2
                                                      (2,3):2
(2,5):2
           (2,6):0
                      (2,9):2
                                 (3,4):1
                                            (3,6):2
                                                      (3,7):1
(3,9): -2
           (4,7):1
                                (4,9):-1
                                                      (5,8):2
                     (4,8):-1
                                           (5,6): -2
(5,9):0
           (6,7):-2
                      (6,9):2
                                (7,8):-1
                                            (7,9):1
                                                      (8,9):0
```

77. Inequality 77 with incidence 35 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -2
           (1,4):2
                      (1,5):1
                                 (1,8):1
                                           (1,9):2
                                                      (2,3):2
(2,5):1
           (2,6): -1
                      (2,9):2
                                 (3,4):2
                                           (3,6):2
                                                      (3,7):0
(3,9): -2
           (4,7):1
                      (4,8):-1
                                 (4,9):0
                                           (5,6): -1
                                                      (5,8):1
(5,9):0
           (6,7):-1
                      (6,9):1
                                 (7,8):0
                                           (7,9):0
                                                      (8,9):-1
```

78. Inequality 78 with incidence 35 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -2
           (1,4):2
                      (1,5):2
                                 (1,8):0
                                            (1,9):2
                                                       (2,3):2
                      (2,9):2
(2,5):1
           (2,6):-1
                                 (3,4):1
                                            (3,6):2
                                                       (3,7):1
(3,9): -2
                                                       (5,8):1
           (4,7):1
                      (4,8):-1
                                 (4,9):-1
                                            (5,6): -1
(5,9):-1
           (6,7):-1
                      (6,9):1
                                 (7,8):0
                                            (7,9):1
                                                       (8,9):0
```

79. Inequality 79 with incidence 34 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):0
          (1,4):1
                     (1,5): -1
                                (1,8):0
                                           (1,9):0
                                                     (2,3):1
(2,5):1
          (2,6): -1
                                                     (3,7):0
                     (2,9):-1
                                (3,4):1
                                           (3,6):0
(3,9):0
                                                     (5,8):1
          (4,7):1
                     (4,8):0
                                (4,9):1
                                           (5,6):0
(5,9):1
                     (6,9):0
                                                     (8,9):0
          (6,7):1
                                (7,8):1
                                          (7,9): -1
```

80. Inequality 80 with incidence 34 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):2
          (1,4):-1
                     (1,5):1
                                (1,8):1
                                           (1,9):1
                                                      (2,3):2
                                                     (3,7):-1
(2,5):0
          (2,6): -2
                     (2,9): -2
                                (3,4):2
                                          (3,6):1
(3,9):0
                                (4,9):2
                                                      (5,8):0
          (4,7):2
                     (4,8):-1
                                          (5,6):1
(5,9):0
          (6,7):1
                     (6,9): -1
                                (7,8):1
                                          (7,9):-1
                                                      (8,9):1
```

81. Inequality 81 with incidence 34 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):0
           (1,4):1
                     (1,5):1
                                (1,8): -1
                                            (1,9):1
                                                       (2,3):1
(2,5):1
           (2,6):0
                     (2,9):0
                                (3,4):1
                                           (3,6):2
                                                      (3,7):-1
                     (4,8): -1
(3,9):1
           (4,7):1
                                (4,9):0
                                                      (5,8):2
                                           (5,6): -2
(5,9):-2
           (6,7):2
                     (6,9): -2
                                (7,8):2
                                           (7,9):0
                                                       (8,9):2
```

82. Inequality 82 with incidence 34 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2): -2
           (1,4):2
                      (1,5):1
                                 (1,8):1
                                             (1,9):2
                                                        (2,3):2
(2,5):1
           (2,6): -1
                      (2,9):2
                                 (3,4):0
                                            (3,6):2
                                                        (3,7):2
(3,9): -2
           (4,7):2
                      (4,8): -2
                                 (4,9): -2
                                            (5,6): -1
                                                        (5,8):1
                                            (7,9):2
(5,9):0
           (6,7):-1
                      (6,9):1
                                 (7,8):1
                                                       (8,9):-1
```

83. Inequality 83 with incidence 33 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,4):1
(1,2):1
                     (1,5): -2
                                (1,8):1
                                           (1,9):1
                                                     (2,3):1
                                                     (3,7):0
(2,5):2
          (2,6): -2
                                           (3,6):0
                     (2,9): -2
                                (3,4):1
                                           (5,6):0
(3,9):0
          (4,7):2
                                (4,9):1
                                                     (5,8):2
                     (4,8): -1
(5,9):2
          (6,7):2
                     (6,9):0
                                (7,8):2
                                          (7,9): -2
                                                     (8,9):0
```

84. Inequality 84 with incidence 33 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(2,3):2
(1,2):2
          (1,4):-1
                     (1,5): -1
                                (1,8):1
                                           (1,9):1
(2,5):1
          (2,6): -1
                                (3,4):2
                                           (3,6):0
                                                      (3,7):0
                     (2,9): -2
(3,9):0
                                (4,9):2
                                                      (5,8):1
          (4,7):2
                     (4,8):-1
                                           (5,6):-1
(5,9):0
          (6,7):2
                     (6,9):0
                                (7,8):2
                                           (7,9): -2
                                                      (8,9):1
```

85. Inequality 85 with incidence 33 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(2,3):2
(1,2):-1
           (1,4):1
                      (1,5):1
                                 (1,8): -1
                                            (1,9):0
(2,5):1
           (2,6):-1
                      (2,9):-1
                                 (3,4):2
                                            (3,6):0
                                                       (3,7):0
(3,9):0
           (4,7):2
                                 (4,9):2
                                                       (5,8):2
                      (4,8):-1
                                            (5,6): -1
           (6,7):2
                                 (7,8):2
(5,9):-1
                      (6,9):0
                                            (7,9): -2
                                                       (8,9):2
```

86. Inequality 86 with incidence 33 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5):0
                                (1,8):-1
                                          (1,9):1
                                                    (2,3):0
(2,5):1
          (2,6): -1
                     (2,9):-1
                                (3,4):1
                                          (3,6):1
                                                    (3,7):0
(3,9):0
                     (4,8):0
                                (4,9):0
                                          (5,6):0
                                                    (5,8):1
          (4,7):0
(5,9):0
                                          (7,9):0
                                                    (8,9):1
          (6,7):1
                     (6,9):-1
                                (7,8):1
```

87. Inequality 87 with incidence 33 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):2
                                 (1,8): -1
                                             (1,9):1
                                                        (2,3):1
(2,5):1
           (2,6): -1
                      (2,9):0
                                 (3,4):1
                                             (3,6):1
                                                       (3,7):-1
(3,9):0
           (4,7):2
                      (4,8):-1
                                 (4,9):1
                                            (5,6): -1
                                                        (5,8):2
(5,9): -2
           (6,7):2
                      (6,9):-1
                                 (7,8):2
                                            (7,9):-1
                                                        (8,9):2
```

88. Inequality 88 with incidence 33 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -2
           (1,4):2
                      (1,5):1
                                (1,8):0
                                           (1,9):1
                                                      (2,3):2
                     (2,9):2
                                           (3,6):2
(2,5):1
           (2,6): -1
                                (3,4):1
                                                      (3,7):1
                                (4,9):0
                                                      (5,8):1
(3,9): -2
           (4,7):1
                      (4,8):0
                                           (5,6): -1
(5,9):0
           (6,7): -2
                      (6,9):2
                                (7,8):-1
                                           (7,9):1
                                                      (8,9):0
```

89. Inequality 89 with incidence 33 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(2,3):2
(1,2):2
          (1,4):-1
                     (1,5): -1
                                (1,8):1
                                           (1,9):1
(2,5):1
          (2,6): -1
                                (3,4):2
                                           (3,6):0
                                                     (3,7):2
                     (2,9): -2
(3,9):2
                                                     (5,8):1
          (4,7):0
                     (4,8):-1
                                (4,9):0
                                          (5,6):-1
(5,9):0
          (6,7):2
                     (6,9):0
                                (7,8):2
                                          (7,9): -2
                                                     (8,9):1
```

90. Inequality 90 with incidence 33 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):1
                     (1,5):2
                                (1,8): -1
                                            (1,9):1
                                                       (2,3):2
(2,5):2
                                                      (3,7):-2
           (2,6):1
                     (2,9):2
                                (3,4):1
                                            (3,6):0
(3,9):-1
                                (4,9):1
                                                       (5,8):2
           (4,7):2
                     (4,8): -1
                                           (5,6): -1
(5,9): -3
           (6,7):1
                     (6,9):-1
                                 (7,8):2
                                           (7,9):-1
                                                       (8,9):2
```

91. Inequality 91 with incidence 33 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -2
           (1,4):2
                      (1,5):1
                                 (1,8):1
                                            (1,9):2
                                                       (2,3):2
(2,5):2
           (2,6):0
                      (2,9):2
                                 (3,4):1
                                            (3,6):2
                                                       (3,7):1
(3,9): -2
           (4,7):1
                                 (4,9):-1
                                                       (5,8):2
                      (4,8):-1
                                            (5,6): -2
           (6,7):-2
                      (6,9):2
                                 (7,8):-1
                                            (7,9):1
                                                       (8,9):-1
(5,9):1
```

92. Inequality 92 with incidence 33 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -2
           (1,4):2
                      (1,5):1
                                (1,8):1
                                           (1,9):2
                                                      (2,3):2
(2,5):1
           (2,6): -1
                      (2,9):2
                                (3,4):1
                                           (3,6):2
                                                      (3,7):1
(3,9): -2
           (4,7):1
                      (4,8):0
                                (4,9):0
                                           (5,6): -1
                                                      (5,8):1
(5,9):0
           (6,7):-1
                     (6,9):1
                                (7,8):-1
                                           (7,9):0
                                                      (8,9):-1
```

93. Inequality 93 with incidence 33 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):0
          (1,4):1
                    (1,5): -1
                               (1,8):1
                                         (1,9):1
                                                    (2,3):1
(2,5):1
          (2,6):0
                    (2,9):0
                               (3,4):1
                                         (3,6):0
                                                    (3,7):0
(3,9):0
                               (4,9):0
                                                    (5,8):1
          (4,7):1
                    (4,8):-1
                                         (5,6): -1
                    (6,9):0
                                         (7,9):-1
(5,9):0
          (6,7):1
                               (7,8):1
                                                    (8,9):0
```

94. Inequality 94 with incidence 32 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5): -1
                                (1,8):0
                                           (1,9):1
                                                     (2,3):1
(2,5):2
                     (2,9):-2
                                           (3,6):2
          (2,6): -2
                                (3,4):1
                                                     (3,7):-1
(3,9):1
                     (4,8): -1
                                                     (5,8):1
          (4,7):1
                                (4,9):0
                                           (5,6):1
(5,9):1
          (6,7):1
                     (6,9): -2
                                (7,8):1
                                           (7,9):0
                                                     (8,9):1
```

95. Inequality 95 with incidence 32 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):1
                     (1,5):1
                                (1,8): -1
                                            (1,9):0
                                                       (2,3):2
(2,5):1
           (2,6):0
                     (2,9):0
                                (3,4):2
                                            (3,6):0
                                                      (3,7):-1
(3,9):-1
                                (4,9):2
                                                       (5,8):2
           (4,7):2
                     (4,8): -1
                                           (5,6): -1
(5,9):-1
           (6,7):1
                     (6,9):0
                                 (7,8):2
                                           (7,9): -2
                                                       (8,9):2
```

96. Inequality 96 with incidence 32 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-2
           (1,4):2
                      (1,5):2
                                 (1,8):0
                                            (1,9):2
                                                       (2,3):2
(2,5):2
           (2,6): -1
                      (2,9):3
                                 (3,4):1
                                            (3,6):2
                                                       (3,7):1
(3,9): -2
                                 (4,9):-1
                                                       (5,8):2
           (4,7):1
                      (4,8):-1
                                            (5,6): -1
(5,9):-1
           (6,7):-2
                      (6,9):2
                                 (7,8):-1
                                            (7,9):1
                                                       (8,9):0
```

97. Inequality 97 with incidence 32 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-3
           (1,4):3
                      (1,5):3
                                 (1,8):0
                                            (1,9):3
                                                       (2,3):3
(2,5):2
           (2,6): -1
                      (2,9):3
                                 (3,4):2
                                            (3,6):3
                                                       (3,7):1
(3,9):-3
                                                       (5,8):2
           (4,7):1
                      (4,8): -1
                                 (4,9):-1
                                            (5,6): -2
(5,9):-1
           (6,7):-2
                      (6,9):2
                                 (7,8):-1
                                            (7,9):1
                                                       (8,9):0
```

98. Inequality 98 with incidence 32 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2): -2
           (1,4):2
                      (1,5):0
                                (1,8):2
                                           (1,9):2
                                                      (2,3):1
                                (3,4):2
                                                      (3,7):0
(2,5):1
           (2,6): -1
                      (2,9):1
                                           (3,6):-1
(3,9):0
                                           (5,6): -1
                                                      (5,8):2
           (4,7):2
                     (4,8): -2
                                (4,9):0
(5,9):0
                      (6,9):1
           (6,7):2
                                (7,8):2
                                           (7,9): -2
                                                      (8,9):0
```

99. Inequality 99 with incidence 32 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(2,3):2
(1,2): -2
          (1,4):2
                     (1,5):1
                                (1,8):1
                                          (1,9): -2
(2,5):1
                                (3,4):2
                                                     (3,7):-1
          (2,6):1
                     (2,9): -2
                                          (3,6):-1
(3,9):2
                                                     (5,8):1
          (4,7):1
                     (4,8):-1
                                (4,9):0
                                          (5,6):1
(5,9):0
                                          (7,9):1
                                                     (8,9):1
          (6,7):1
                     (6,9):0
                                (7,8):0
```

100. Inequality 100 with incidence 31 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5): -1
                                (1,8):0
                                           (1,9):1
                                                      (2,3):1
          (2,6): -2
(2,5):2
                     (2,9): -2
                                (3,4):1
                                           (3,6):1
                                                      (3,7):-1
(3,9):0
                                                      (5,8):1
          (4,7):2
                     (4,8):-1
                                (4,9):1
                                           (5,6):1
(5,9):1
          (6,7):1
                     (6,9): -1
                                (7,8):1
                                           (7,9):-1
                                                      (8,9):1
```

101. Inequality 101 with incidence 31 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):0
          (1,4):1
                     (1,5):-1
                                (1,8):0
                                          (1,9):0
                                                     (2,3):2
(2,5):2
          (2,6): -2
                     (2,9): -2
                                (3,4):2
                                          (3,6):1
                                                     (3,7):-1
(3,9):0
                     (4,8):-1
                                (4,9):2
                                                     (5,8):1
          (4,7):2
                                          (5,6):1
                                          (7,9):-1
                                                     (8,9):1
(5,9):1
          (6,7):1
                     (6,9):-1
                                (7,8):1
```

102. Inequality 102 with incidence 31 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):1
                                 (1,8): -1
                                             (1,9):0
                                                        (2,3):2
(2,5):1
           (2,6): -1
                      (2,9):-1
                                 (3,4):1
                                            (3,6):2
                                                       (3,7):-1
(3,9):2
           (4,7):0
                      (4,8):0
                                 (4,9):0
                                            (5,6): -1
                                                        (5,8):2
                      (6,9): -2
                                 (7,8):2
(5,9):-1
           (6,7):2
                                            (7,9):1
                                                        (8,9):1
```

103. Inequality 103 with incidence 31 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):1
                      (1,5):2
                                 (1,8):-1
                                           (1,9):1
                                                      (2,3):2
(2,5):2
           (2,6): -2
                                           (3,6):2
                                                      (3,7):-2
                      (2,9):-1
                                 (3,4):1
                                           (5,6):0
(3,9):1
           (4,7):2
                                                      (5,8):2
                      (4,8):-1
                                 (4,9):1
(5,9): -2
           (6,7):2
                      (6,9): -2
                                 (7,8):2
                                           (7,9):0
                                                      (8,9):2
```

104. Inequality 104 with incidence 31 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                     (1,5):2
                                (1,8): -1
                                           (1,9):1
                                                      (2,3):2
(2,5):2
          (2,6):0
                     (2,9):1
                                (3,4):1
                                                      (3,7):-2
                                           (3,6):1
(3,9):0
          (4,7):2
                                                      (5,8):2
                     (4,8):-1
                                (4,9):1
                                           (5,6):-1
                                                      (8,9):2
(5,9):-3
          (6,7):1
                                (7,8):2
                                           (7,9):-1
                     (6,9):-1
```

105. Inequality 105 with incidence 31 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -2
           (1,4):2
                      (1,5):1
                                 (1,8):1
                                            (1,9):2
                                                        (2,3):2
(2,5):1
           (2,6): -1
                      (2,9):2
                                 (3,4):1
                                            (3,6):2
                                                        (3,7):1
(3,9): -2
           (4,7):1
                      (4,8):-1
                                 (4,9):-1
                                            (5,6): -1
                                                        (5,8):1
(5,9):0
           (6,7):-1
                      (6,9):1
                                 (7,8):0
                                            (7,9):1
                                                       (8,9):-1
```

106. Inequality 106 with incidence 31 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):0
          (1,4):2
                     (1,5): -2
                                (1,8):2
                                           (1,9):2
                                                     (2,3):2
(2,5):2
          (2,6): -2
                     (2,9): -2
                                (3,4):2
                                          (3,6):1
                                                     (3,7):-1
(3,9):0
                     (4,8): -2
                                (4,9):0
                                          (5,6):1
                                                     (5,8):2
          (4,7):2
(5,9):3
          (6,7):1
                     (6,9):-1
                                (7,8):1
                                          (7,9):-1
                                                     (8,9):-1
```

107. Inequality 107 with incidence 30 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):-1
           (1,4):1
                     (1,5):-1
                                (1,8):1
                                           (1,9):0
                                                      (2,3):2
(2,5):1
           (2,6):2
                     (2,9): -2
                                (3,4):2
                                           (3,6): -1
                                                      (3,7):1
(3,9):0
                                (4,9):2
                                                      (5,8):0
          (4,7):-2
                      (4,8):1
                                           (5,6): -1
(5,9):1
           (6,7):1
                      (6,9):1
                                (7,8):1
                                           (7,9):1
                                                      (8,9):-1
```

108. Inequality 108 with incidence 30 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5):0
                                (1,8):-1
                                           (1,9):1
                                                     (2,3):1
(2,5):2
          (2,6): -2
                     (2,9): -2
                                (3,4):1
                                           (3,6):2
                                                     (3,7):-1
(3,9):1
                                           (5,6):0
                                (4,9):0
                                                     (5,8):2
          (4,7):1
                     (4,8):-1
(5,9):0
          (6,7):2
                     (6,9): -2
                                (7,8):2
                                           (7,9):0
                                                     (8,9):2
```

109. Inequality 109 with incidence 30 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):0
           (1,4):1
                      (1,5):1
                                 (1,8):-1
                                            (1,9):1
                                                       (2,3):1
(2,5):1
                                            (3,6):2
                                                       (3,7):-1
           (2,6): -1
                      (2,9):-1
                                 (3,4):1
(3,9):1
           (4,7):1
                      (4,8):-1
                                 (4,9):0
                                            (5,6):-1
                                                       (5,8):2
                      (6,9): -2
                                 (7,8):2
(5,9):-1
           (6,7):2
                                            (7,9):0
                                                       (8,9):2
```

110. Inequality 110 with incidence 30 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):1
                                 (1,8): -1
                                             (1,9):0
                                                        (2,3):2
(2,5):1
           (2,6): -1
                      (2,9):-1
                                 (3,4):2
                                            (3,6):2
                                                       (3,7):-1
(3,9):1
                                                        (5,8):2
           (4,7):1
                      (4,8):-1
                                 (4,9):1
                                            (5,6): -1
                      (6,9): -2
(5,9):-1
           (6,7):2
                                 (7,8):2
                                            (7,9):0
                                                        (8,9):2
```

111. Inequality 111 with incidence 30 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):1
                      (1,5):1
                                 (1,8):-1
                                            (1,9):0
                                                       (2,3):2
(2,5):1
           (2,6): -1
                      (2,9):-1
                                 (3,4):2
                                            (3,6):1
                                                       (3,7):-1
(3,9):0
                      (4,8):-1
                                 (4,9):2
                                                       (5,8):2
           (4,7):2
                                            (5,6): -1
           (6,7):2
                      (6,9):-1
                                 (7,8):2
                                            (7,9):-1
                                                       (8,9):2
(5,9):-1
```

112. Inequality 112 with incidence 30 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):1
                      (1,5):2
                                  (1,8): -1
                                             (1,9):1
                                                        (2,3):2
(2,5):2
           (2,6): -1
                      (2,9):0
                                  (3,4):1
                                             (3,6):2
                                                        (3,7): -2
(3,9):1
           (4,7):2
                      (4,8):-1
                                  (4,9):1
                                             (5,6): -1
                                                        (5,8):2
                      (6,9): -2
                                  (7,8):2
(5,9): -3
           (6,7):2
                                             (7,9):0
                                                        (8,9):2
```

113. Inequality 113 with incidence 30 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -2
           (1,4):2
                      (1,5):1
                                 (1,8):1
                                            (1,9):2
                                                        (2,3):2
                                            (3,6):2
(2,5):2
           (2,6): -1
                      (2,9):3
                                 (3,4):1
                                                        (3,7):1
(3,9): -2
                                                        (5,8):2
           (4,7):1
                      (4,8):-1
                                 (4,9):-1
                                            (5,6): -1
(5,9):0
           (6,7): -2
                      (6,9):2
                                 (7,8):-1
                                            (7,9):1
                                                       (8,9):-1
```

114. Inequality 114 with incidence 30 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -3
           (1,4):3
                      (1,5):2
                                 (1,8):1
                                            (1,9):3
                                                       (2,3):3
(2,5):2
           (2,6): -1
                      (2,9):3
                                 (3,4):2
                                            (3,6):3
                                                       (3,7):1
(3,9): -3
           (4,7):1
                      (4,8):-1
                                 (4,9):-1
                                            (5,6): -2
                                                       (5,8):2
(5,9):0
           (6,7):-2
                      (6,9):2
                                 (7,8):-1
                                            (7,9):1
                                                       (8,9):-1
```

115. Inequality 115 with incidence 30 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):0
           (1,4):1
                     (1,5):1
                                (1,8): -1
                                            (1,9):1
                                                       (2,3):1
(2,5):1
           (2,6):1
                     (2,9):1
                                (3,4):1
                                            (3,6):1
                                                      (3,7):-1
(3,9):0
                                (4,9):0
                                           (5,6): -2
                                                       (5,8):2
           (4,7):1
                     (4,8): -1
(5,9): -2
           (6,7):2
                     (6,9): -2
                                 (7,8):2
                                            (7,9):0
                                                       (8,9):2
```

116. Inequality 116 with incidence 30 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5): -2
                                (1,8):2
                                           (1,9):2
                                                      (2,3):2
(2,5):2
          (2,6): -2
                     (2,9): -3
                                (3,4):2
                                           (3,6):1
                                                     (3,7):-1
(3,9):0
                     (4,8): -2
                                (4,9):1
                                           (5,6):1
                                                      (5,8):2
          (4,7):2
(5,9):3
          (6,7):1
                                (7,8):1
                                           (7,9):-1
                                                     (8,9):-1
                     (6,9):-1
```

117. Inequality 117 with incidence 30 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
           (1,4):1
                     (1,5):0
                                (1,8):1
                                           (1,9): -1
                                                      (2,3):1
                                           (3,6):0
(2,5):1
           (2,6):0
                     (2,9):1
                                (3,4):1
                                                      (3,7):-1
(3,9): -1
           (4,7):2
                     (4,8): -2
                                (4,9):2
                                          (5,6): -1
                                                      (5,8):1
                                (7,8):2
(5,9):-1
           (6,7):1
                     (6,9):0
                                          (7,9): -2
                                                      (8,9):2
```

118. Inequality 118 with incidence 29 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,4):2
(1,2): -2
                      (1,5):0
                                 (1,8):2
                                           (1,9):2
                                                      (2,3):2
           (2,6): -2
                                 (3,4):2
(2,5):2
                      (2,9):0
                                           (3,6):1
                                                      (3,7):-1
(3,9):0
                                (4,9):0
                                                      (5,8):2
           (4,7):2
                      (4,8): -2
                                           (5,6):1
(5,9):1
                      (6,9):-1
                                 (7,8):1
                                           (7,9): -1
                                                      (8,9):-1
           (6,7):1
```

119. Inequality 119 with incidence 29 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):2
           (1,4):1
                      (1,5):-1
                                 (1,8):1
                                            (1,9):-1
                                                       (2,3):2
(2,5):2
           (2,6): -3
                      (2,9):3
                                            (3,6):3
                                                       (3,7):3
                                 (3,4):1
(3,9): -3
           (4,7): -2
                      (4,8):-1
                                 (4,9):1
                                            (5,6):1
                                                       (5,8):1
(5,9):-1
           (6,7):-2
                      (6,9):3
                                            (7,9):3
                                 (7,8): -2
                                                       (8,9):1
```

120. Inequality 120 with incidence 29 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
          (1,4):2
                     (1,5):1
                                (1,8): -1
                                           (1,9):1
                                                      (2,3):2
                                                     (3,7):-1
(2,5):1
          (2,6): -2
                     (2,9): -2
                                (3,4):-1
                                           (3,6):2
(3,9):2
                                           (5,6):1
                                                      (5,8):1
          (4,7):1
                     (4,8):0
                                (4,9):0
                     (6,9): -2
(5,9):0
          (6,7):1
                                (7,8):1
                                           (7,9):0
                                                      (8,9):1
```

121. Inequality 121 with incidence 28 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):1
          (1,4):-1
                     (1,5):1
                                (1,8):0
                                           (1,9):1
                                                     (2,3):2
(2,5):1
          (2,6): -2
                     (2,9): -2
                                (3,4):2
                                          (3,6):1
                                                     (3,7):-1
(3,9):0
                     (4,8):-1
                                (4,9):2
                                                     (5,8):1
          (4,7):2
                                          (5,6):1
(5,9):0
          (6,7):1
                                          (7,9):-1
                                                     (8,9):1
                     (6,9):-1
                                (7,8):1
```

122. Inequality 122 with incidence 28 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2): -1
           (1,4):2
                      (1,5):2
                                 (1,8): -2
                                             (1,9):1
                                                        (2,3):2
(2,5):1
           (2,6): -1
                      (2,9):-1
                                 (3,4):2
                                            (3,6):3
                                                       (3,7):-1
(3,9):2
           (4,7):1
                      (4,8):-1
                                 (4,9):0
                                            (5,6): -2
                                                        (5,8):3
                      (6,9): -3
(5,9): -2
           (6,7):3
                                 (7,8):3
                                            (7,9):0
                                                        (8,9):3
```

123. Inequality 123 with incidence 28 and stabilizer of size 1. Orbit size is 4096 nature: unknown

```
(1,2):-1
           (1,4):2
                      (1,5):2
                                 (1,8): -1
                                            (1,9):0
                                                       (2,3):2
(2,5):1
           (2,6): -1
                     (2,9):-1
                                 (3,4):2
                                                       (3,7):-1
                                            (3,6):3
(3,9):2
           (4,7):1
                     (4,8): -2
                                 (4,9):1
                                                       (5,8):3
                                            (5,6): -2
(5,9): -2
           (6,7):3
                      (6,9): -3
                                 (7,8):3
                                            (7,9):0
                                                       (8,9):3
```

124. Inequality 124 with incidence 26 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):2
           (1,4): -2
                      (1,5): -1
                                 (1,8):2
                                            (1,9):1
                                                       (2,3):3
(2,5):1
                                            (3,6):3
           (2,6): -2
                      (2,9):2
                                 (3,4):1
                                                       (3,7):2
(3,9): -3
           (4,7):1
                      (4,8):1
                                 (4,9):1
                                            (5,6): -1
                                                       (5,8):2
(5,9):1
           (6,7): -3
                      (6,9):3
                                 (7,8):-2
                                            (7,9):2
                                                       (8,9):-1
```

125. Inequality 125 with incidence 25 and stabilizer of size 2. Orbit size is 2048 nature: unknown

```
(1,2):1
          (1,4):1
                     (1,5): -1
                                (1,8):0
                                          (1,9):1
                                                     (2,3):1
(2,5):2
          (2,6): -2
                     (2,9): -2
                                (3,4):1
                                          (3,6):1
                                                     (3,7):0
(3,9):1
                     (4,8): -1
                                (4,9):0
                                          (5,6):1
                                                     (5,8):1
          (4,7):1
(5,9):1
                                          (7,9):-1
                                                     (8,9):1
          (6,7):1
                     (6,9):-1
                                (7,8):1
```