CUBIC MULTIGRAPHS A005967

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ABSTRACT. These are illustrations of the undirected connected cubic (3-regular) multigraphs up to 10 vertices as counted in [1, A005967].

1. 2 VERTICES

1.1. 0 multi-edges 2 loops. (1 graphs)
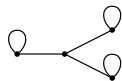

1.2. 1 multi-edges 0 loops. (1 graphs)

Total: 2 graphs, 1 without loops.

2. 4 VERTICES

2.1. 0 multi-edges 0 loops. (1 graphs)

2.2. 0 multi-edges 3 loops. (1 graphs)

2.3. 1 multi-edges 1 loops. (1 graphs)

2.4. 1 multi-edges 2 loops. (1 graphs)

2.5. 2 multi-edges 0 loops. (1 graphs)
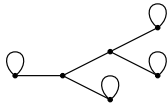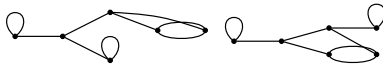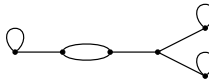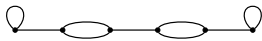

Total: 5 graphs, 2 without loops.

3. 6 VERTICES

3.1. **0 multi-edges 0 loops.** (2 graphs)

3.2. **0 multi-edges 1 loops.** (1 graphs)

3.3. **0 multi-edges 2 loops.** (1 graphs)

3.4. **0 multi-edges 3 loops.** (1 graphs)

3.5. **0 multi-edges 4 loops.** (1 graphs)

3.6. **1 multi-edges 0 loops.** (1 graphs)

3.7. **1 multi-edges 1 loops.** (1 graphs)

3.8. **1 multi-edges 2 loops.** (2 graphs)

3.9. **1 multi-edges 3 loops.** (1 graphs)

3.10. **2 multi-edges 0 loops.** (2 graphs)

3.11. **2 multi-edges 1 loops.** (2 graphs)

3.12. **2 multi-edges 2 loops.** (1 graphs)

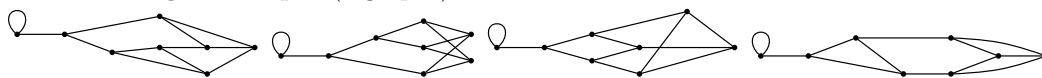### 3.13. **3 multi-edges 0 loops.** (1 graphs)
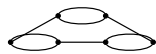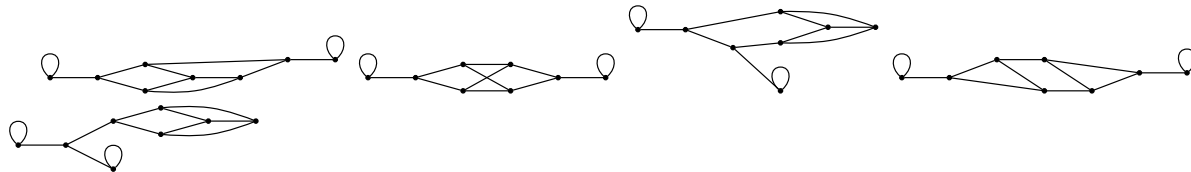

Total: 17 graphs, 6 without loops.

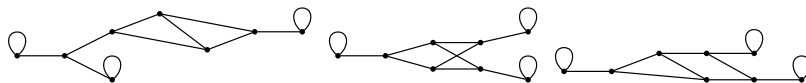## 4. 8 VERTICES

4.1. **0 multi-edges 0 loops.** (5 graphs)
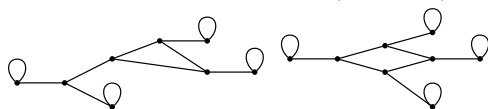

4.2. **0 multi-edges 1 loops.** (4 graphs)

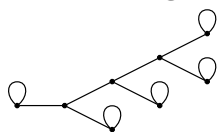### 4.3. **0 multi-edges 2 loops.** (5 graphs)

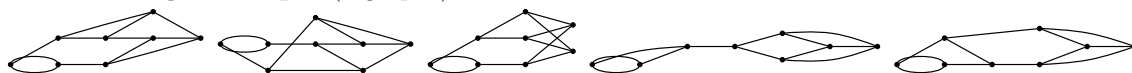### 4.4. **0 multi-edges 3 loops.** (3 graphs)

4.5. **0 multi-edges 4 loops.** (2 graphs)

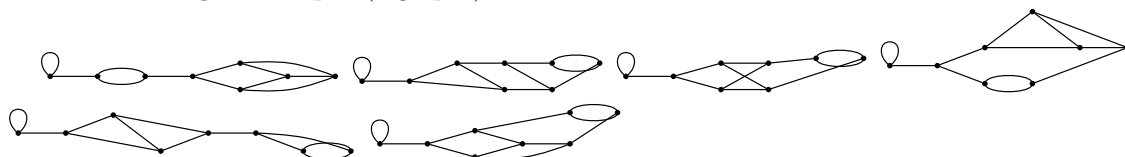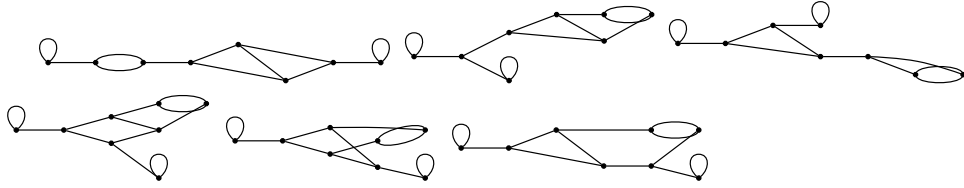### 4.6. **0 multi-edges 5 loops.** (1 graphs)
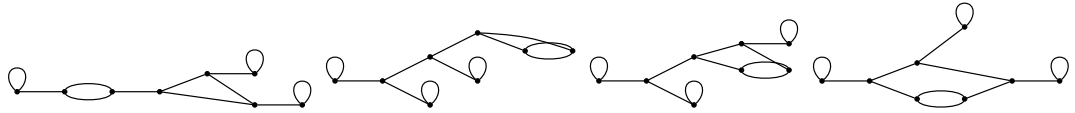

4.7. **1 multi-edges 0 loops.** (5 graphs)

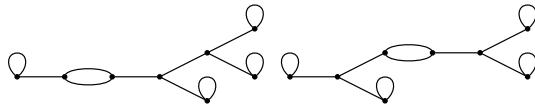### 4.8. **1 multi-edges 1 loops.** (6 graphs)
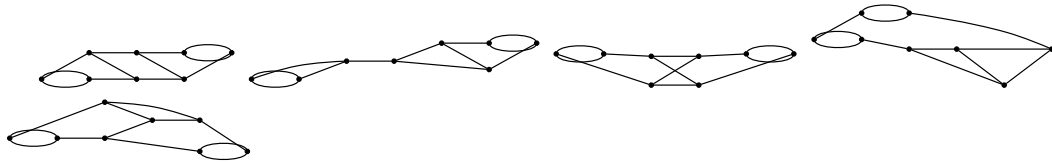
4.9. **1 multi-edges 2 loops.** (6 graphs)

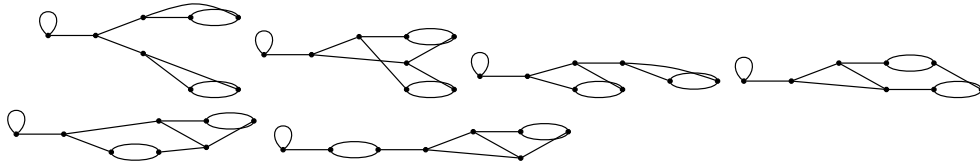4.10. **1 multi-edges 3 loops.** (4 graphs)
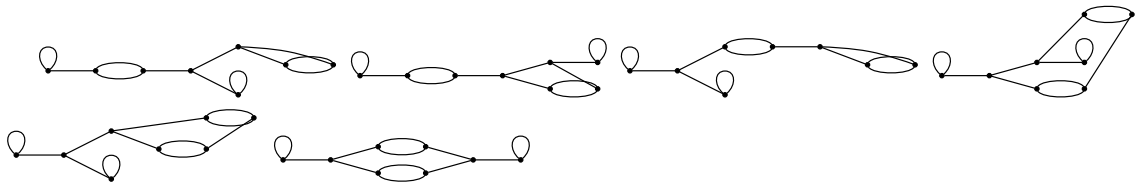
4.11. **1 multi-edges 4 loops.** (2 graphs)

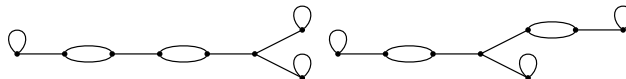4.12. **2 multi-edges 0 loops.** (5 graphs)
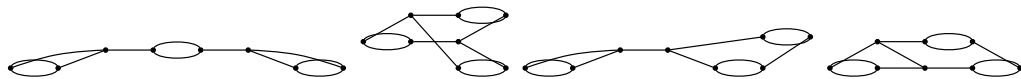
4.13. **2 multi-edges 1 loops.** (6 graphs)

4.14. **2 multi-edges 2 loops.** (6 graphs)

4.15. **2 multi-edges 3 loops.** (2 graphs)

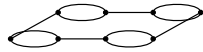4.16. **3 multi-edges 0 loops.** (4 graphs)

4.17. **3 multi-edges 1 loops.** (3 graphs)

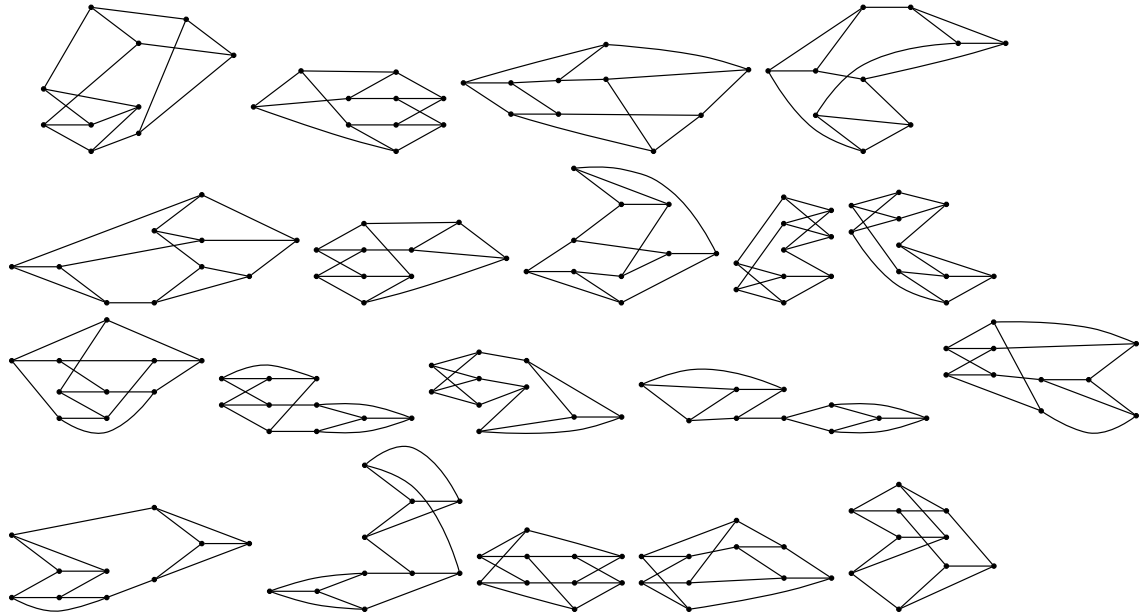### 4.18. **3 multi-edges 2 loops.** (1 graphs)

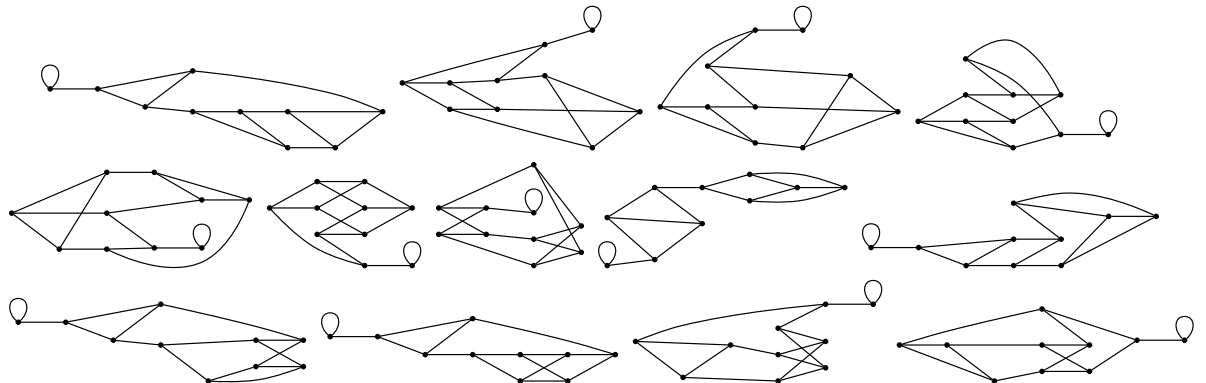### 4.19. **4 multi-edges 0 loops.** (1 graphs)
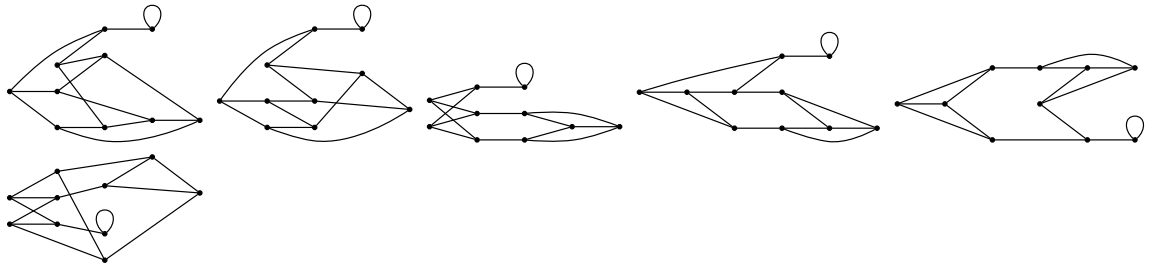
Total: 71 graphs, 20 without loops.
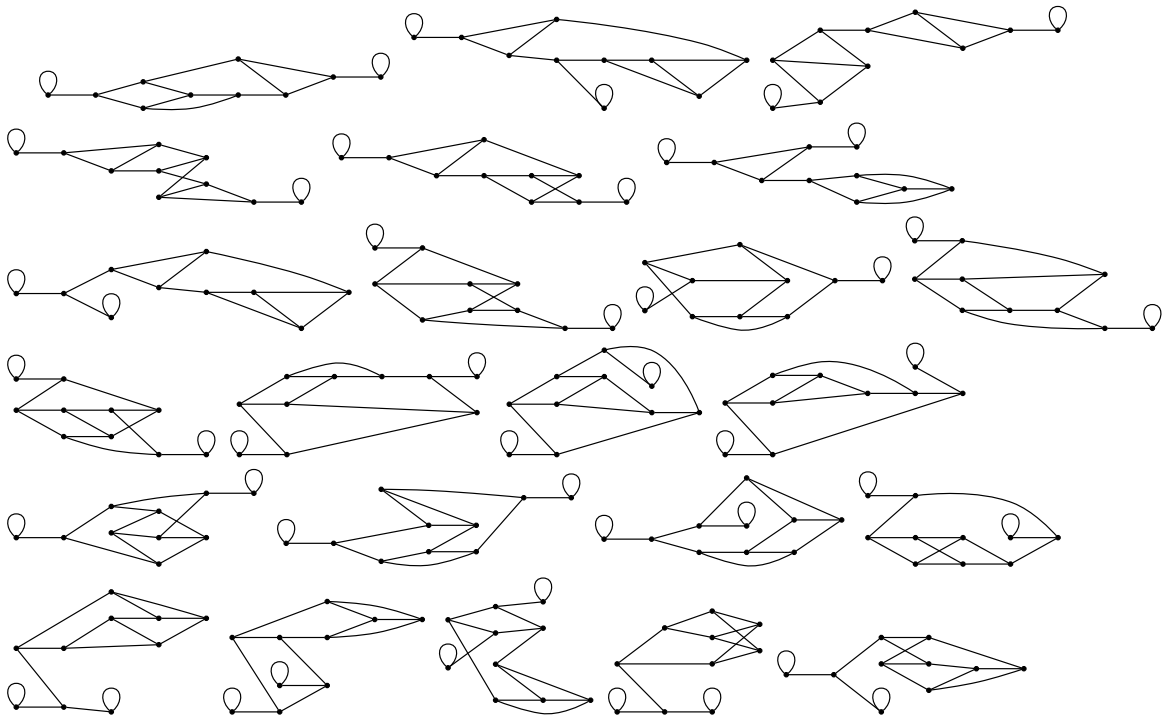
5. 10 VERTICES

5.1. **0 multi-edges 0 loops.** (19 graphs)

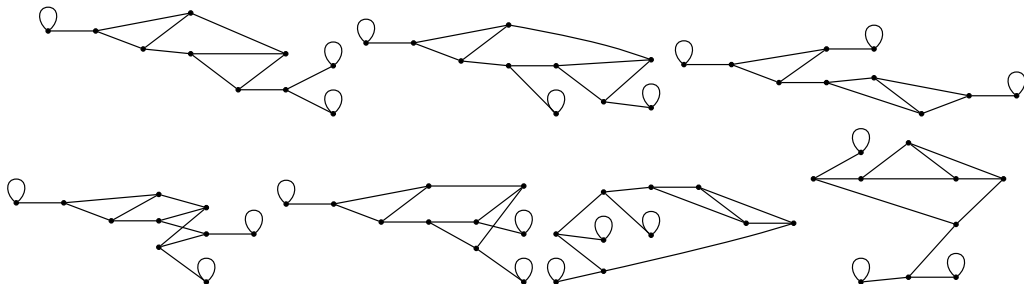### 5.2. **0 multi-edges 1 loops.** (19 graphs)

5.3. **0 multi-edges 2 loops.** (23 graphs)
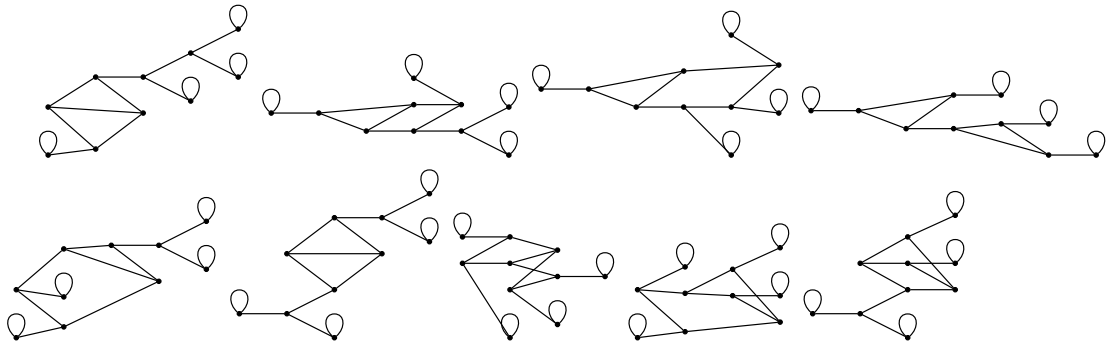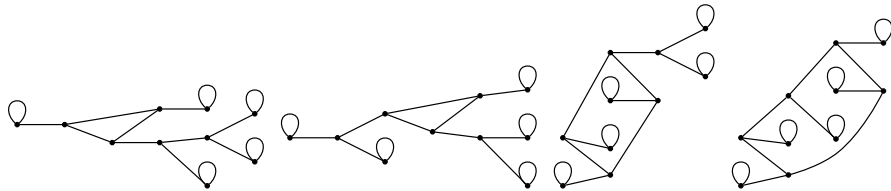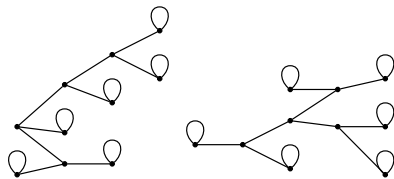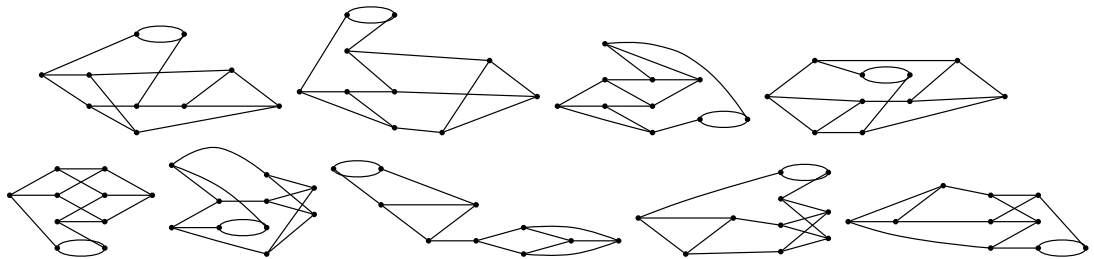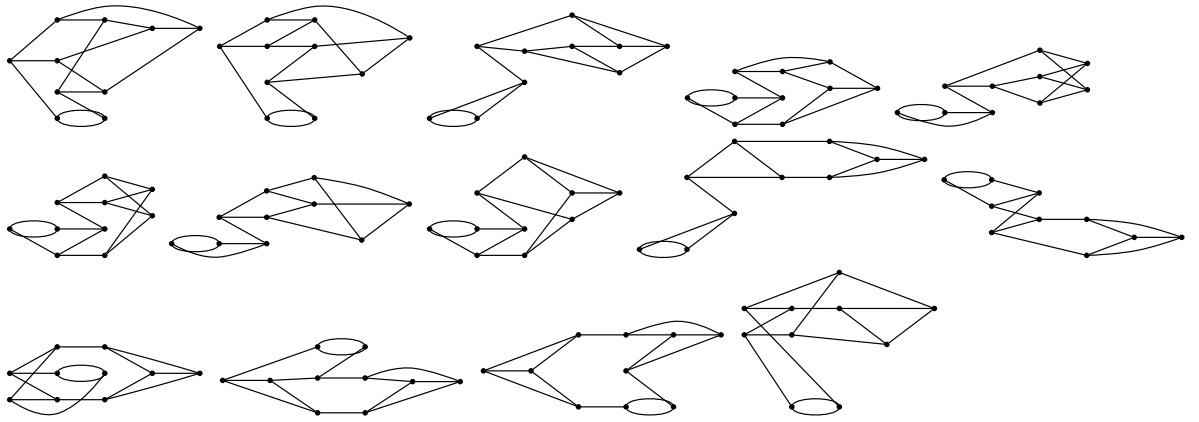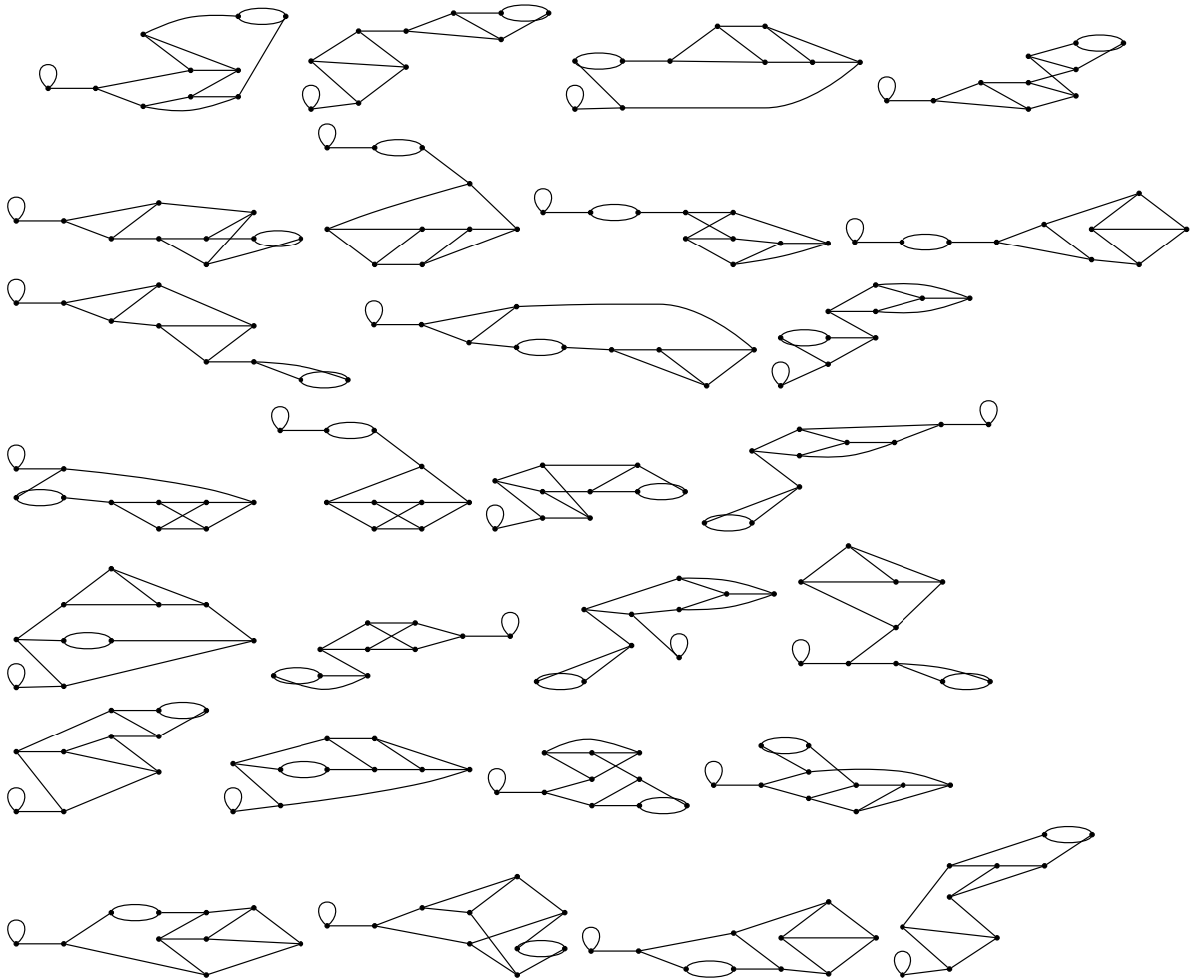

5.4. **0 multi-edges 3 loops.** (15 graphs)
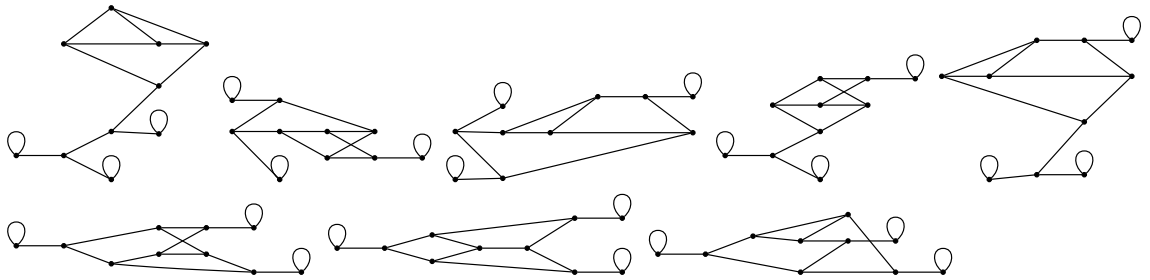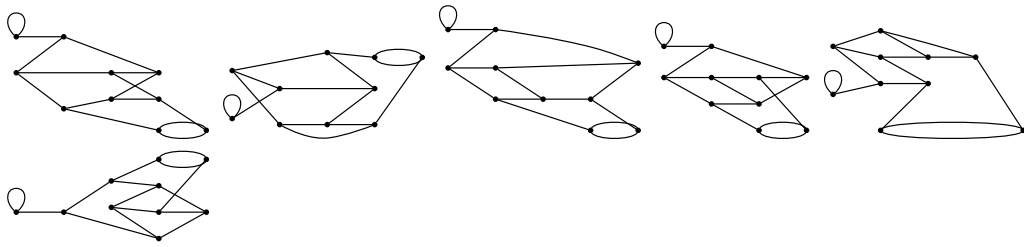
5.5. **0 multi-edges 4 loops.** (9 graphs)

5.6. **0 multi-edges 5 loops.** (4 graphs)

5.7. **0 multi-edges 6 loops.** (2 graphs)

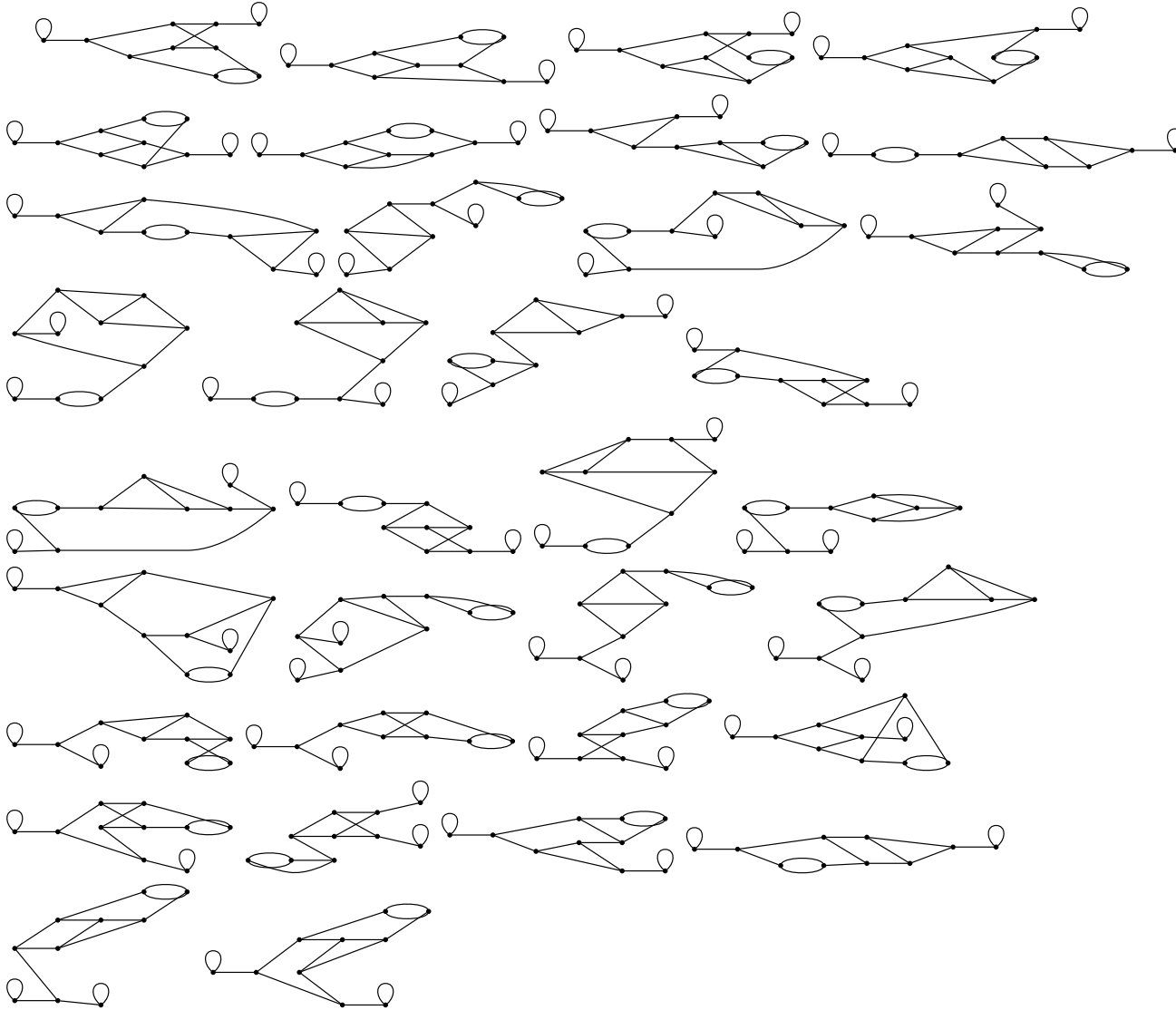### 5.8. **1 multi-edges 0 loops.** (23 graphs)

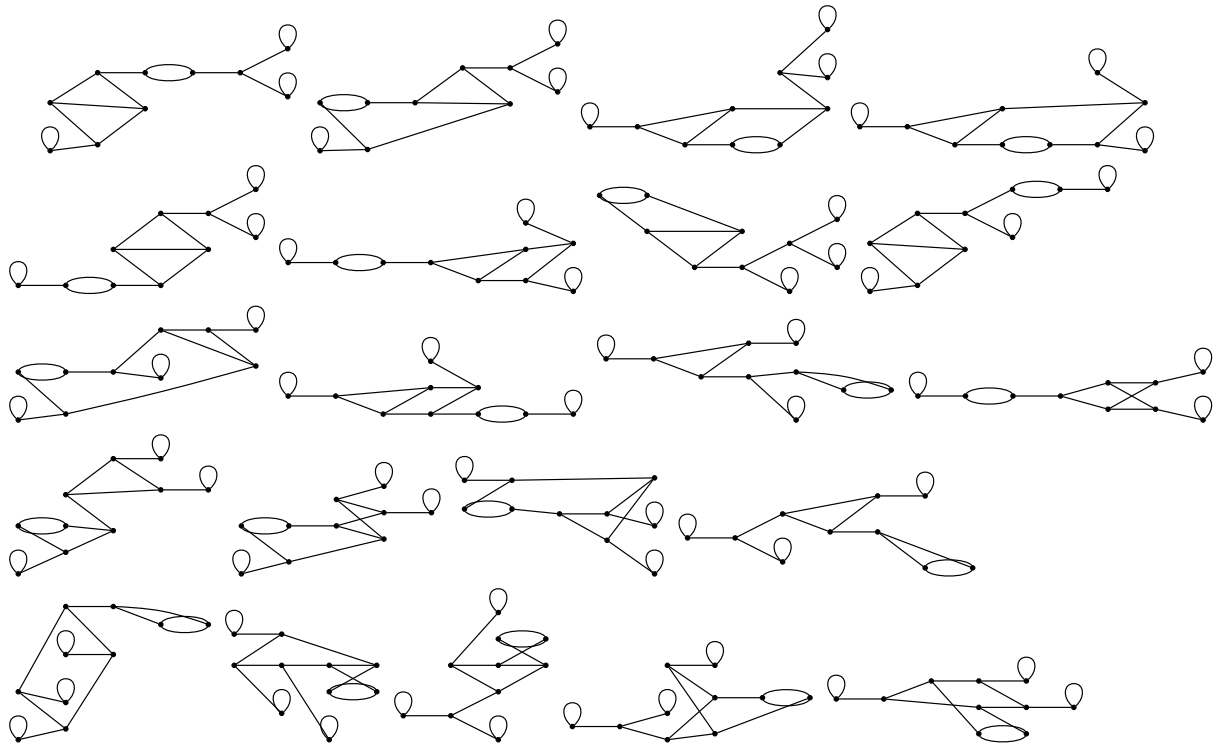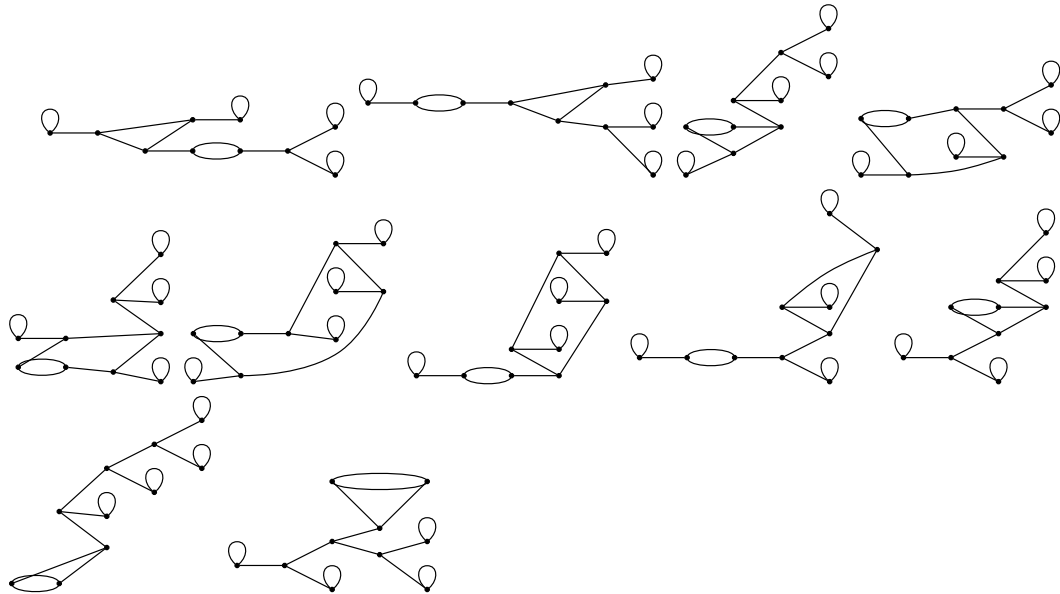## 5.9. **1 multi-edges 1 loops.** (33 graphs)

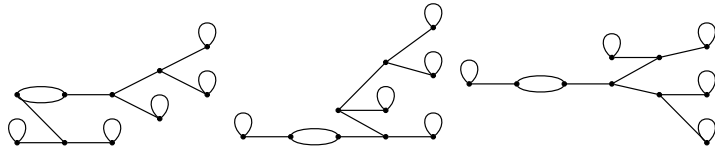### 5.10. **1 multi-edges 2 loops.** (34 graphs)

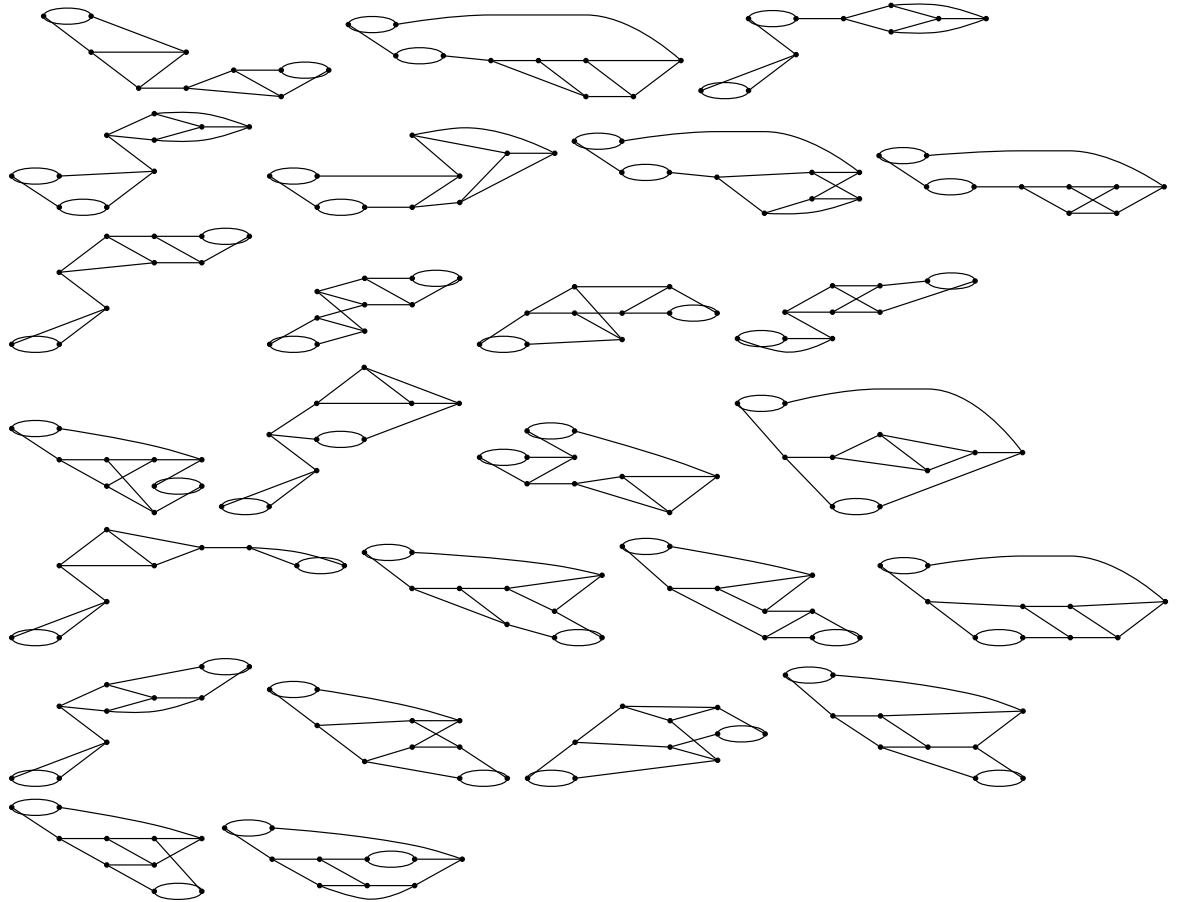
5.11. **1 multi-edges 3 loops.** (21 graphs)
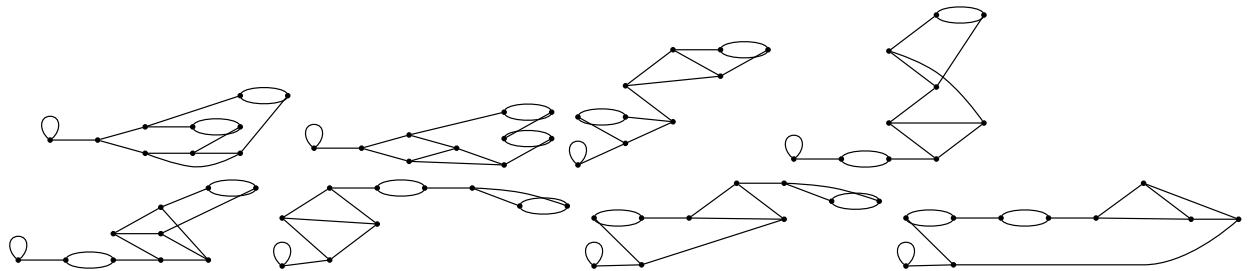
5.12. **1 multi-edges 4 loops.** (11 graphs)
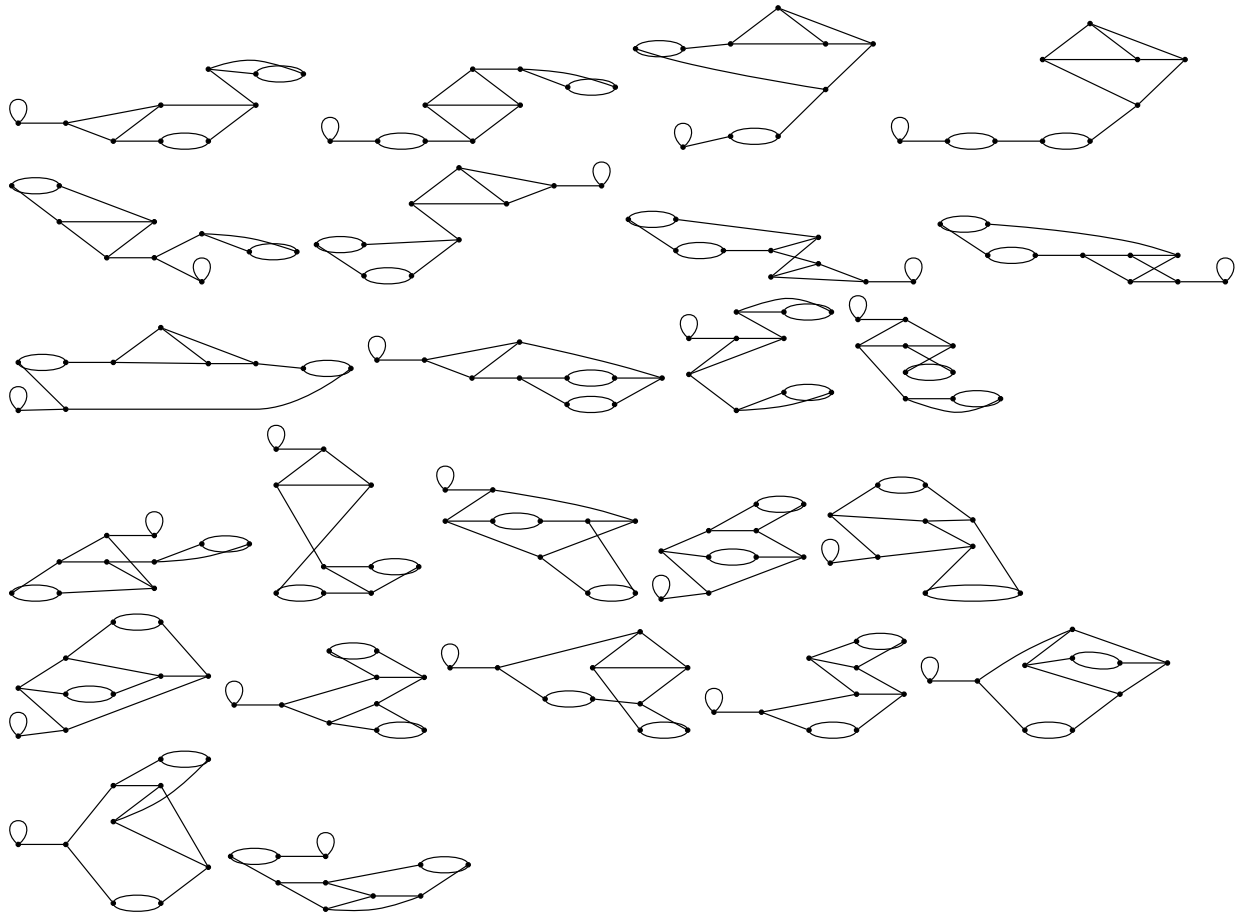

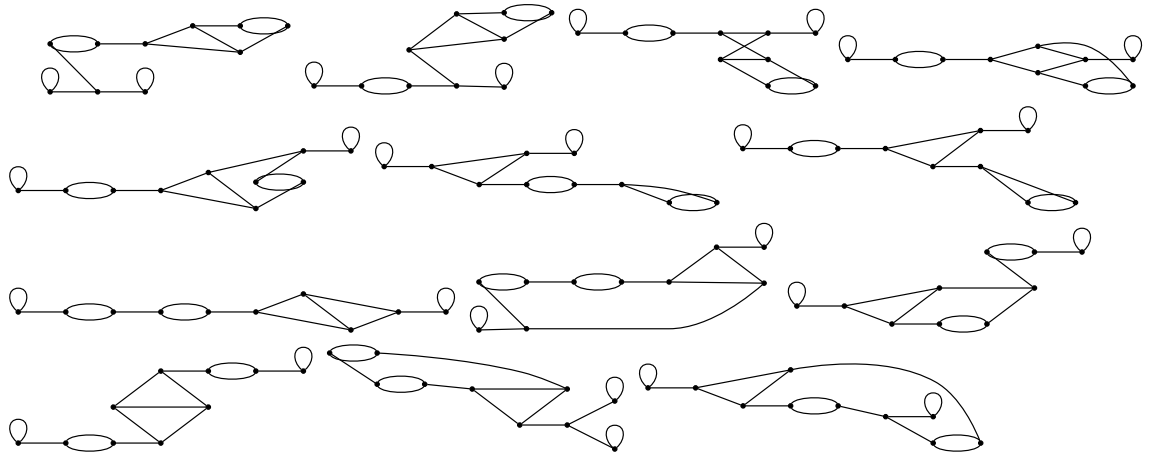5.13. **1 multi-edges 5 loops.** (3 graphs)

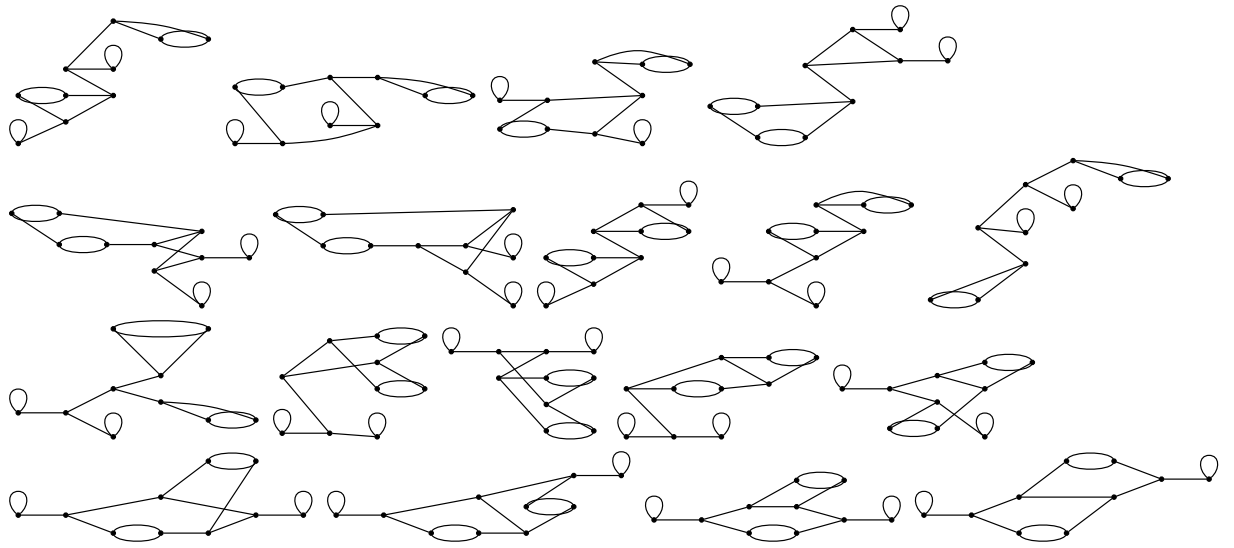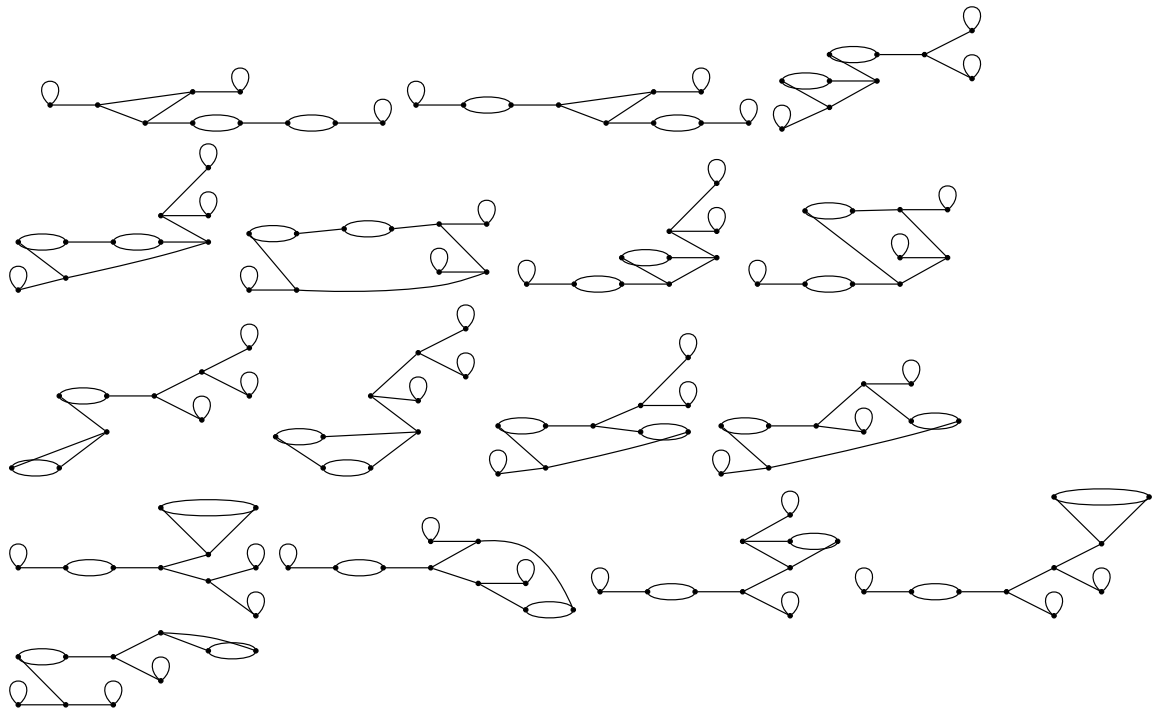### 5.14. **2 multi-edges 0 loops.** (25 graphs)

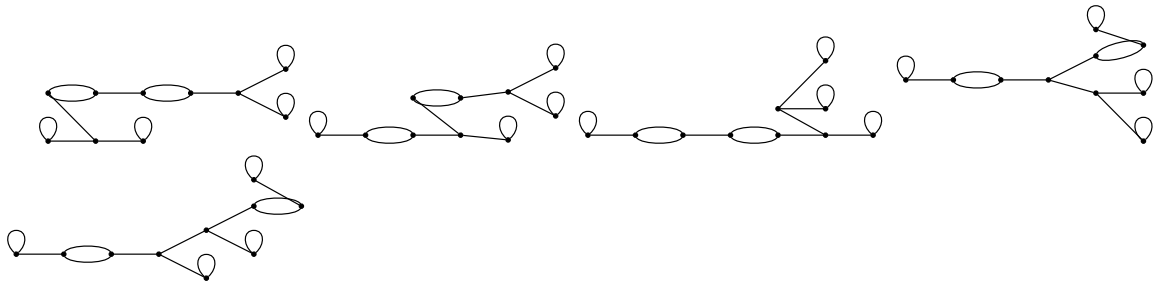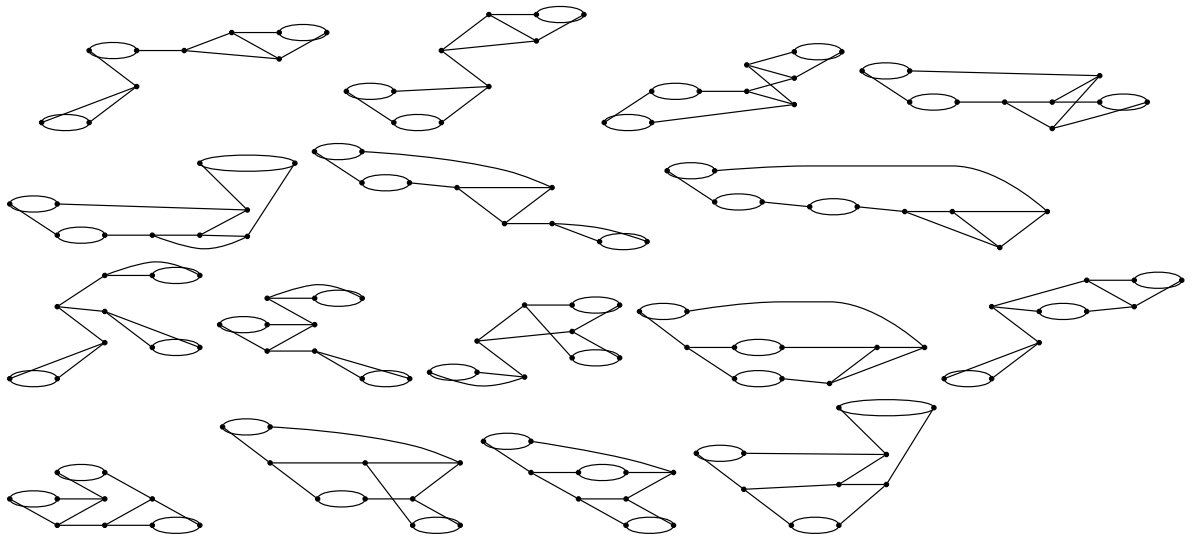### 5.15. **2 multi-edges 1 loops.** (32 graphs)

5.16. **2 multi-edges 2 loops.** (31 graphs)

5.17. **2 multi-edges 3 loops.** (16 graphs)

5.18. **2 multi-edges 4 loops.** (5 graphs)

5.19. 3 multi-edges 0 loops. (16 graphs)

5.20. 3 multi-edges 1 loops. (18 graphs)
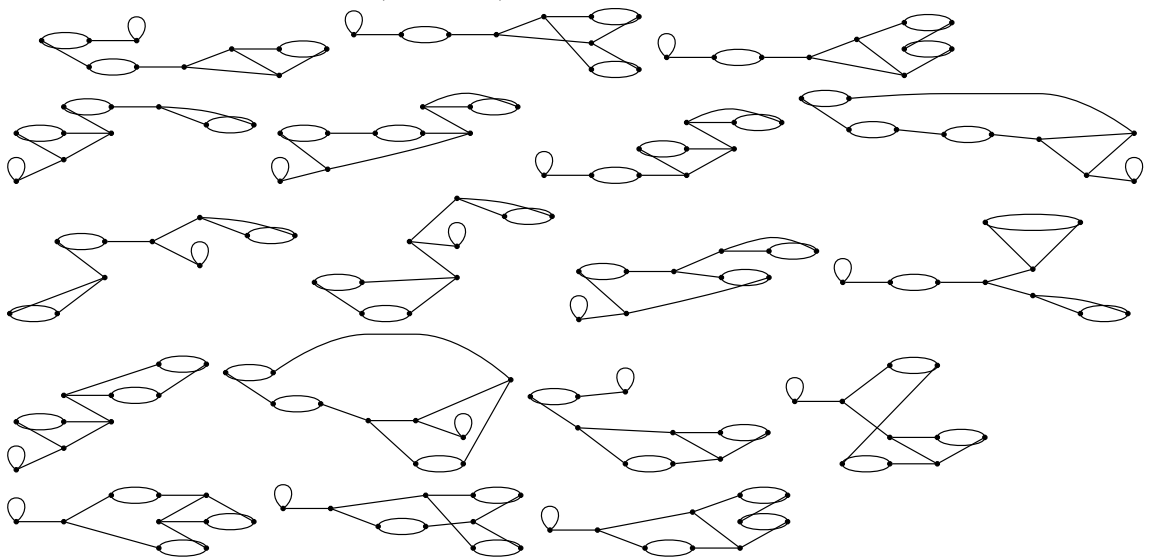
5.21. **3 multi-edges 2 loops.** (13 graphs)

5.22. **3 multi-edges 3 loops.** (3 graphs)
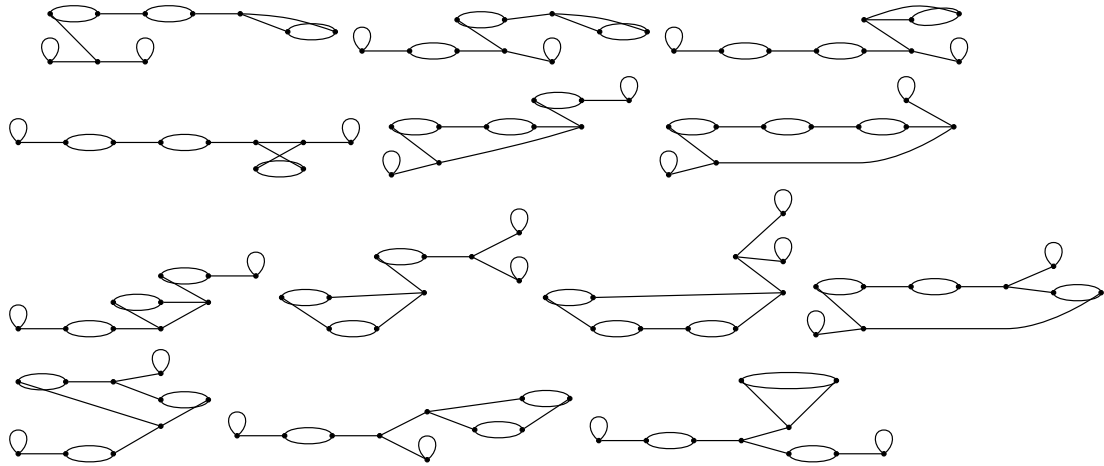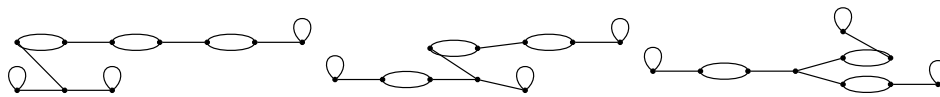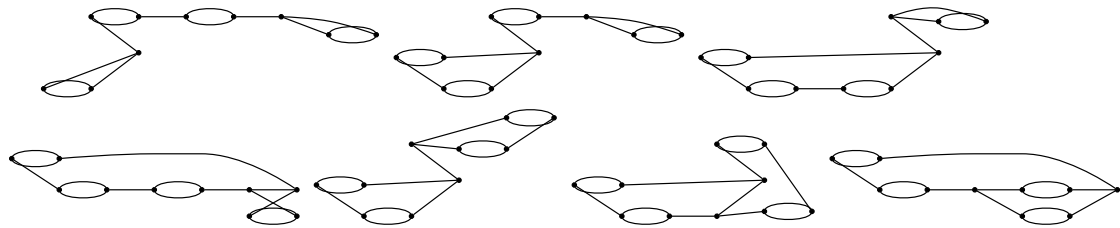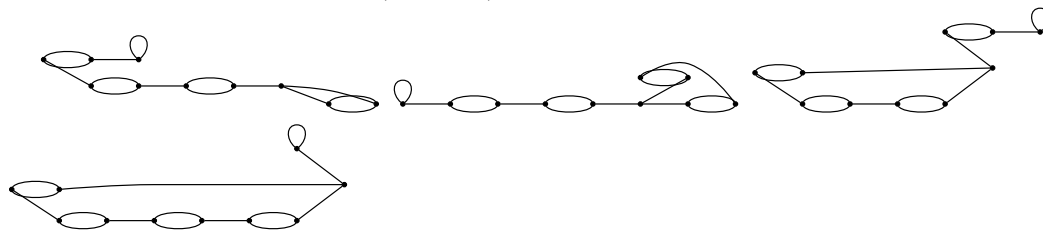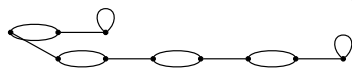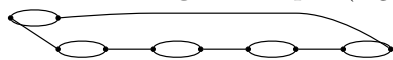
5.23. **4 multi-edges 0 loops.** (7 graphs)

5.24. **4 multi-edges 1 loops.** (4 graphs)

5.25. **4 multi-edges 2 loops.** (1 graphs)

5.26. **5 multi-edges 0 loops.** (1 graphs)

Total: 388 graphs, 91 without loops.

References

1. Neil J. A. Sloane, *The On-Line Encyclopedia Of Integer Sequences*, Notices Am. Math. Soc.
   50 (2003), no. 8, 912–915, http://oeis.org/. MR 1992789
   URL: `http://www.mpia.de/~mathar`

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