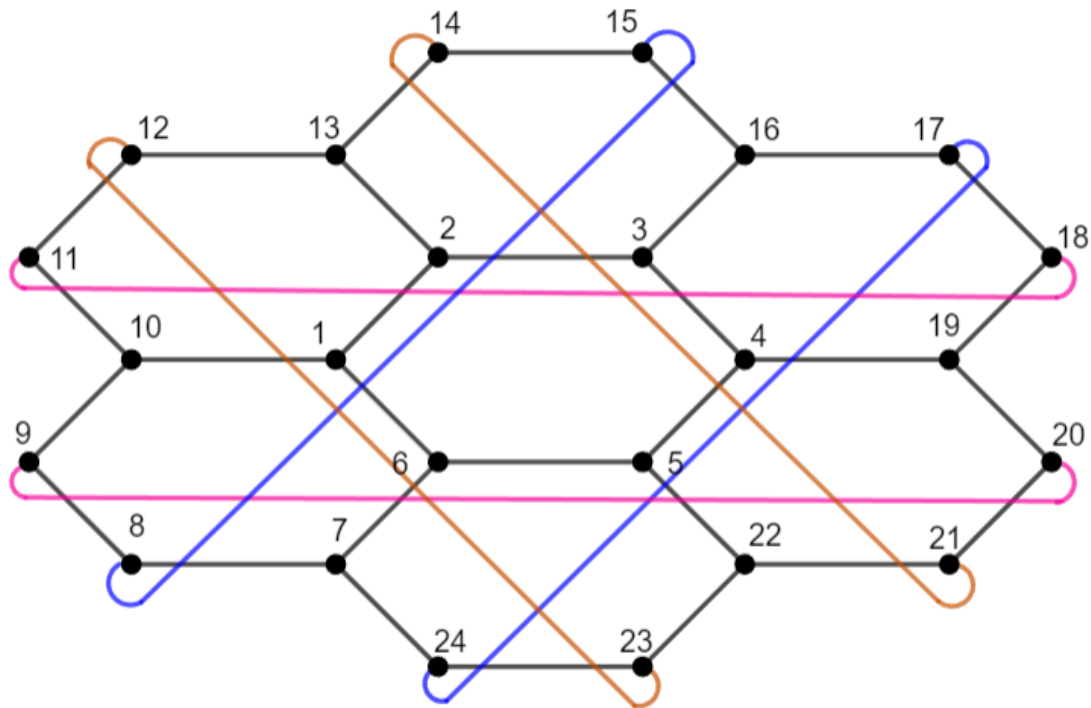


Honeycomb Torus Network of dimension two $HCT(2)$



1-fault tolerant metric dimension - 6

1*DRW* index - 28

Extracted 1-fault tolerant metric bases using extended *BIGS* algorithm

1. $\{1, 3, 5, 8, 14, 20\}$
2. $\{1, 3, 5, 12, 18, 24\}$
3. $\{1, 4, 7, 9, 16, 18\}$
4. $\{1, 4, 8, 12, 17, 21\}$
5. $\{1, 4, 11, 13, 20, 22\}$
6. $\{1, 7, 9, 12, 14, 22\}$
7. $\{1, 8, 11, 13, 16, 24\}$
8. $\{2, 4, 6, 9, 15, 21\}$
9. $\{2, 4, 6, 11, 17, 23\}$
10. $\{2, 5, 7, 14, 16, 23\}$
11. $\{2, 5, 10, 12, 19, 21\}$
12. $\{2, 5, 11, 15, 20, 24\}$
13. $\{2, 7, 10, 12, 15, 17\}$
14. $\{2, 9, 11, 14, 16, 19\}$
15. $\{3, 6, 8, 10, 17, 19\}$
16. $\{3, 6, 9, 14, 18, 23\}$
17. $\{3, 6, 13, 15, 22, 24\}$
18. $\{3, 10, 13, 15, 18, 20\}$
19. $\{3, 12, 14, 17, 19, 22\}$
20. $\{4, 7, 15, 17, 20, 22\}$
21. $\{4, 13, 16, 18, 21, 23\}$
22. $\{5, 7, 10, 18, 20, 23\}$
23. $\{5, 8, 16, 19, 21, 24\}$
24. $\{6, 8, 10, 13, 21, 23\}$
25. $\{6, 9, 11, 19, 22, 24\}$
26. $\{7, 10, 13, 16, 19, 22\}$
27. $\{8, 11, 14, 17, 20, 23\}$
28. $\{9, 12, 15, 18, 21, 24\}$