| Algorithmics | Student information | Date | Number of session |
|---|---|---|---|
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# Activity 1. Map Colouring

The theoretical time complexity is O(n) because the number of neighbors and number of colours are not dependant on n, so only the first loop counts for the complexity.

| n | tColoring(ms) |
|---|---|
| 8 | 5,1 |
| 16 | 3 |
| 32 | 4,95 |
| 64 | 9,25 |
| 128 | 19,5 |
| 256 | 31,8 |
| 512 | 65,5 |
| 1024 | 160,3 |
| 2048 | 265,8 |
| 4096 | 504 |
| 8192 | 701 |
| 16384 | 1560 |
| 32768 | 4188 |
| 65536 | 11588 |

The measured times deviate from the theoretical ones, which is most likely cause by case-dependant variables like the number of connections of each node in each graph.