Activity 1. TABLE FOR GRAPH COLOURING TIMES

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| **n** | **t Colouring (ms)** |
| 2^3 | 1.72210 e-05 |
| 2^4 | 0.0001164 |
| 2^5 | 0.0001575 |
| 2^6 | 0.0001601 |
| 2^7 | 0.0003204 |
| 2^8 | 0.0006366 |
| 2^9 | 0.0012312 |
| 2^10 | 0.0026956 |
| 2^11 | 0.0056018 |
| 2^12 | 0.0127153 |
| 2^13 | 0.0248535 |
| 2^14 | 0.0603334 |
| 2^15 | 0.1339454 |
| 2^16 | 0.2954041 |

If we double the size, the time doubles.

I would say that is O(n\*log(n)) as I first of all add the nodes in a heap and it is O(log(n)), but I do it for the n elements, so it is O(n\*log(n)). The rest of code does not increase the complexity. It may be O(n2), but it depends on the number of interconnectivity of the nodes in the graph.