Algorithmics	Student information	Date	Number of session
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Activity 1. TABLE FOR GRAPH COLOURING TIMES

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 $O(n^2)$, but it depends on the number of interconnectivity of the nodes in the graph.