

COM2031 EXAM NOTES, CONDENSED

02 AC 01

Lovelace Lab 129

Time: 15:30 - 17:30

Jim Lam

September 24, 2024

Contents

1	Divide and Conquer	1
1.1	Tiling example	1
1.1.1	Base case	1
1.1.2	Recursive case	2

1 Divide and Conquer

1.1 Tiling example

Did the 2^n grid tilings problem.

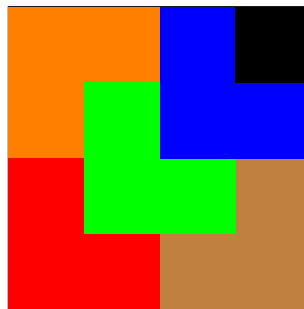


Figure 1: Example of a 4x4 grid with some tiles

1.1.1 Base case

Base case is 2^1

wich is just a 2 by 2 grid. only 4 ways to tile it with L shape tiles.

1.1.2 Recursive case

2^2 comes next. We can divide the grid into 4 quadrants. We can tile the grid by tiling the 4 quadrants.

Did quicksort runthrough.