

Randomised Algorithms  
Winter term 2022/2023, Exercise Sheet No. 3

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**Exercise 1.**

**Exercise 2.**

**Exercise 3.**

(a) We start from Top to Bottom, we assign 1 to the root, and follow these two strategies to assign the levels below until we reach the leaves:

If the parent is  $\vee$ :

- First child: 0
- Second child: Parent Value

If the parent is  $\wedge$ :

- First child: 1
- Second child: Parent Value

(b) The following figures captures the algorithm:

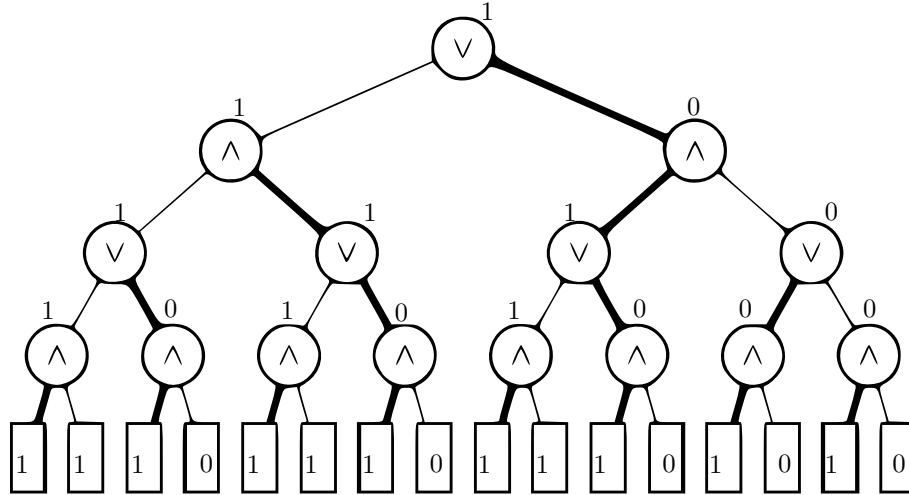


Figure 1: graph-incsape

**Exercise 4.**