

# Functional Programming: Assignment 4

Group 60

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## 1

- Day: Mon, Tue, Wed
- Prop:  $T \rightarrow F, T, F$
- Unit: Unit
- Foo a: Bar 1, Bar 2, Bar (1 + 1)
- Tuple: Two 1 2, One 3, None
- Wrapped: Wrapped (Wrapped (Bare 5)), Wrapped (Bare 5), Bare 5

## 2

- isWeekend :: Day  $\rightarrow$  Bool
- bval :: Prop  $\rightarrow$  Bool
- incr :: Foo [String]  $\rightarrow$  Foo String
- wrap :: (Num a, Eq a)  $\Rightarrow a \rightarrow$  Wrapped b  $\rightarrow$  Wrapped (Wrapped b)

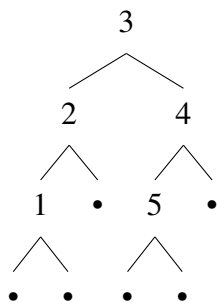
## 3

1.

Tree Char = Leaf | Node Char (Tree Char) (Tree Char)

No, because the child on the left is not always smaller than the parent (5 of 4)

2.



3.

See Tree.hs

4

See Tree.hs

5

See Tree.hs

6

See ATS.hs