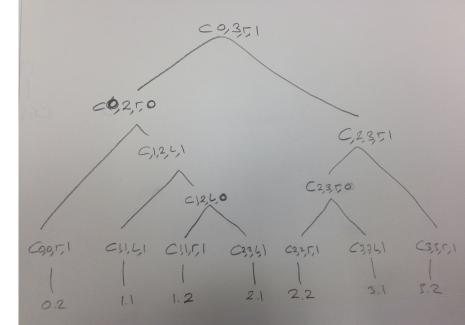
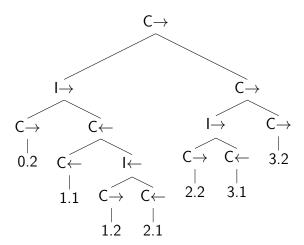
## Question 1

```
\begin{array}{lll} g_1(x,h,m) &=& 1 \text{ if } x_h = \operatorname{car} \text{ and } x_m = \operatorname{the} \\ g_2(x,h,m) &=& 1 \text{ if } POS(h) = \operatorname{NN} \text{ and } POS(m) = \operatorname{DT} \\ && \text{and } POS(i) \neq \operatorname{VB} \text{ for } i \in \{(h+1)\dots(m-1)\} \\ && \text{and } i \in \{(m+1)\dots(h-1)\} \end{array}
```

## Question 2a



## Question 2a



## Question 3

- ▶  $C(\mathsf{the}) = 1$ ,  $C(\mathsf{dog}) = 2$
- e(the|1) = e(dog|2) = 1
- q(1|2) = q(2|1) = 1