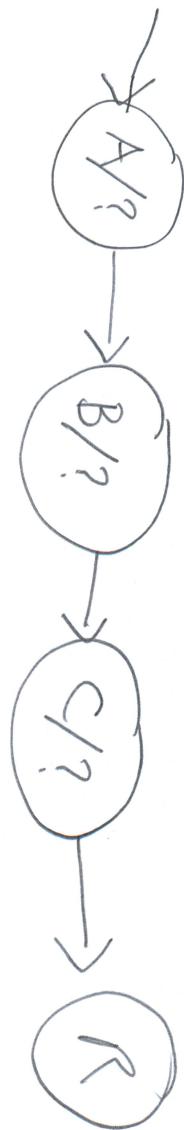
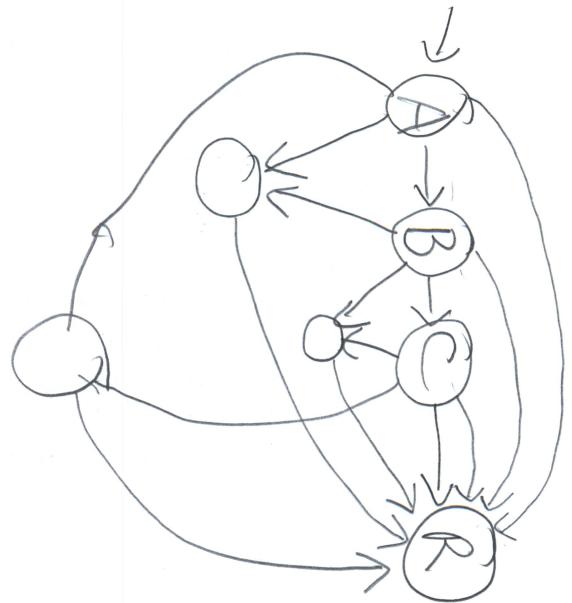


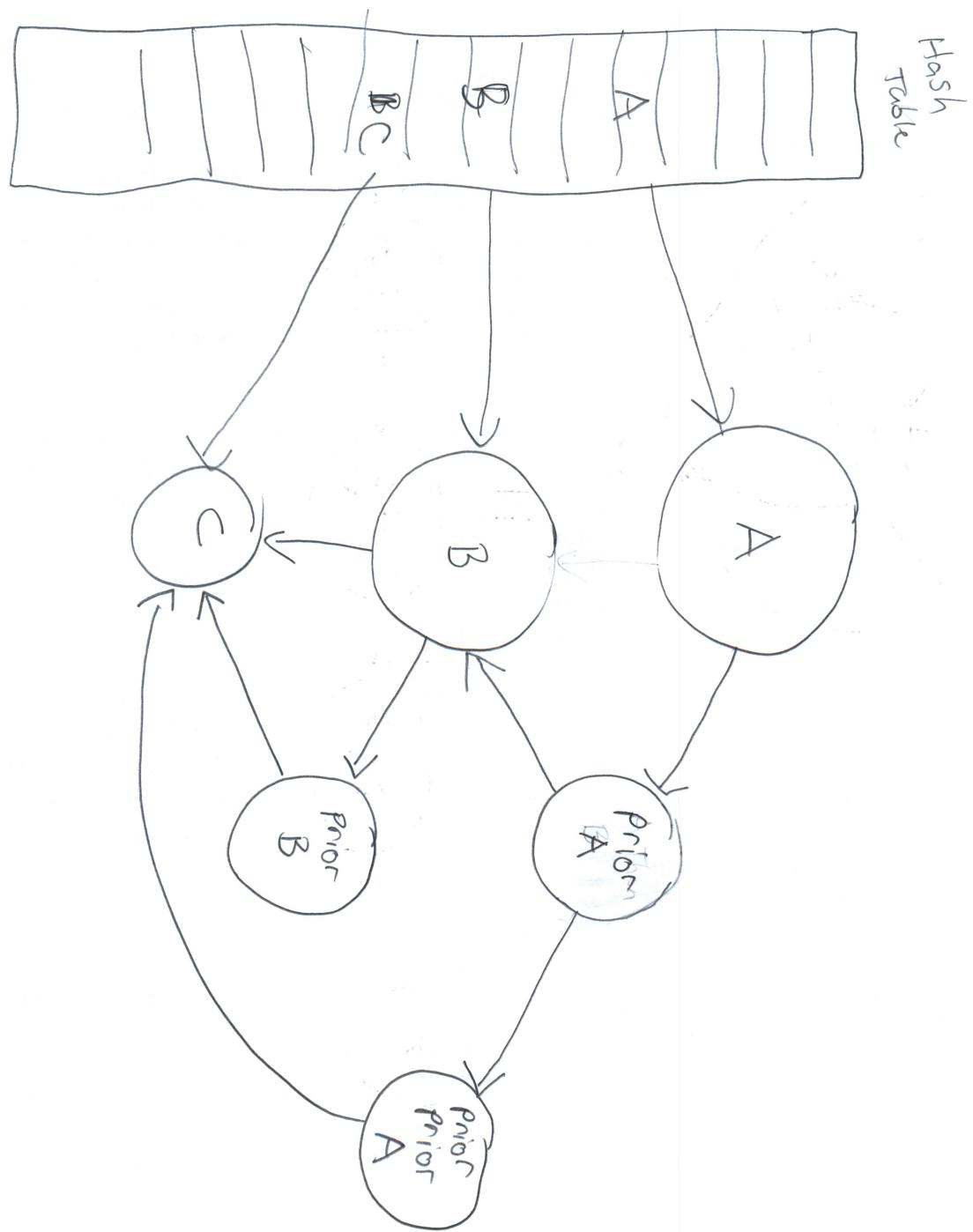
—



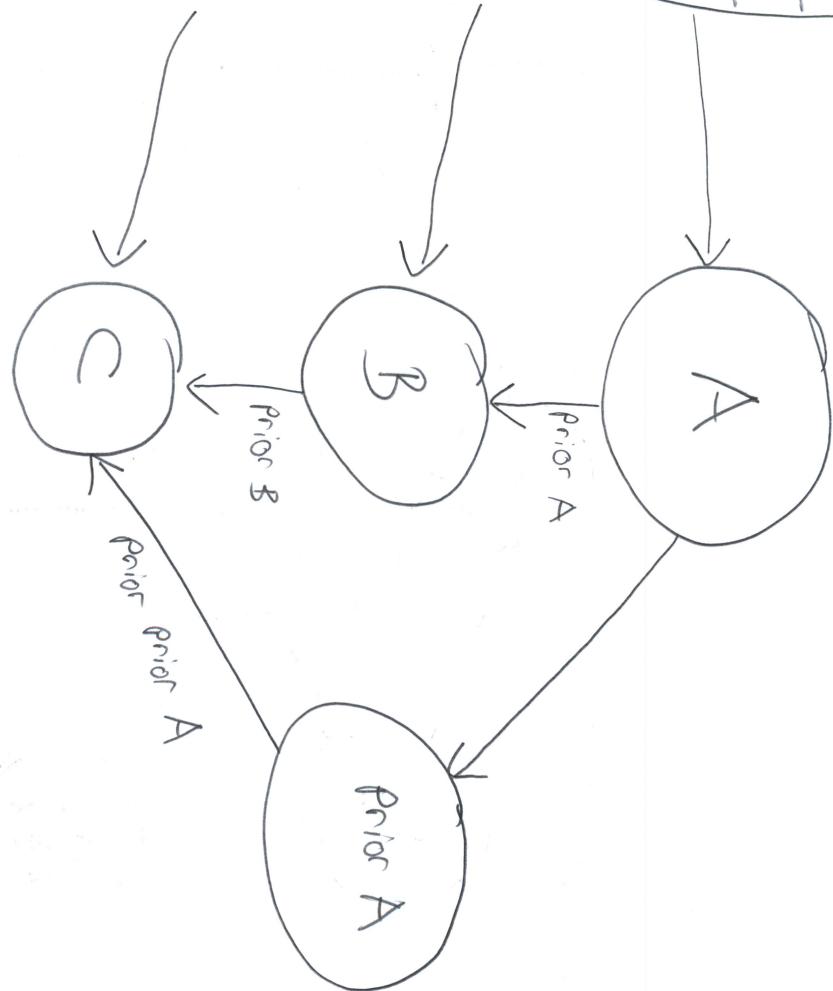
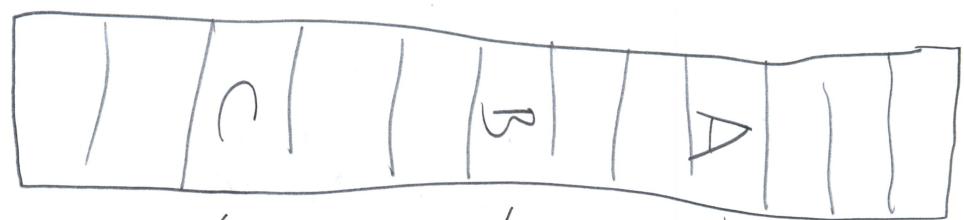
11



2



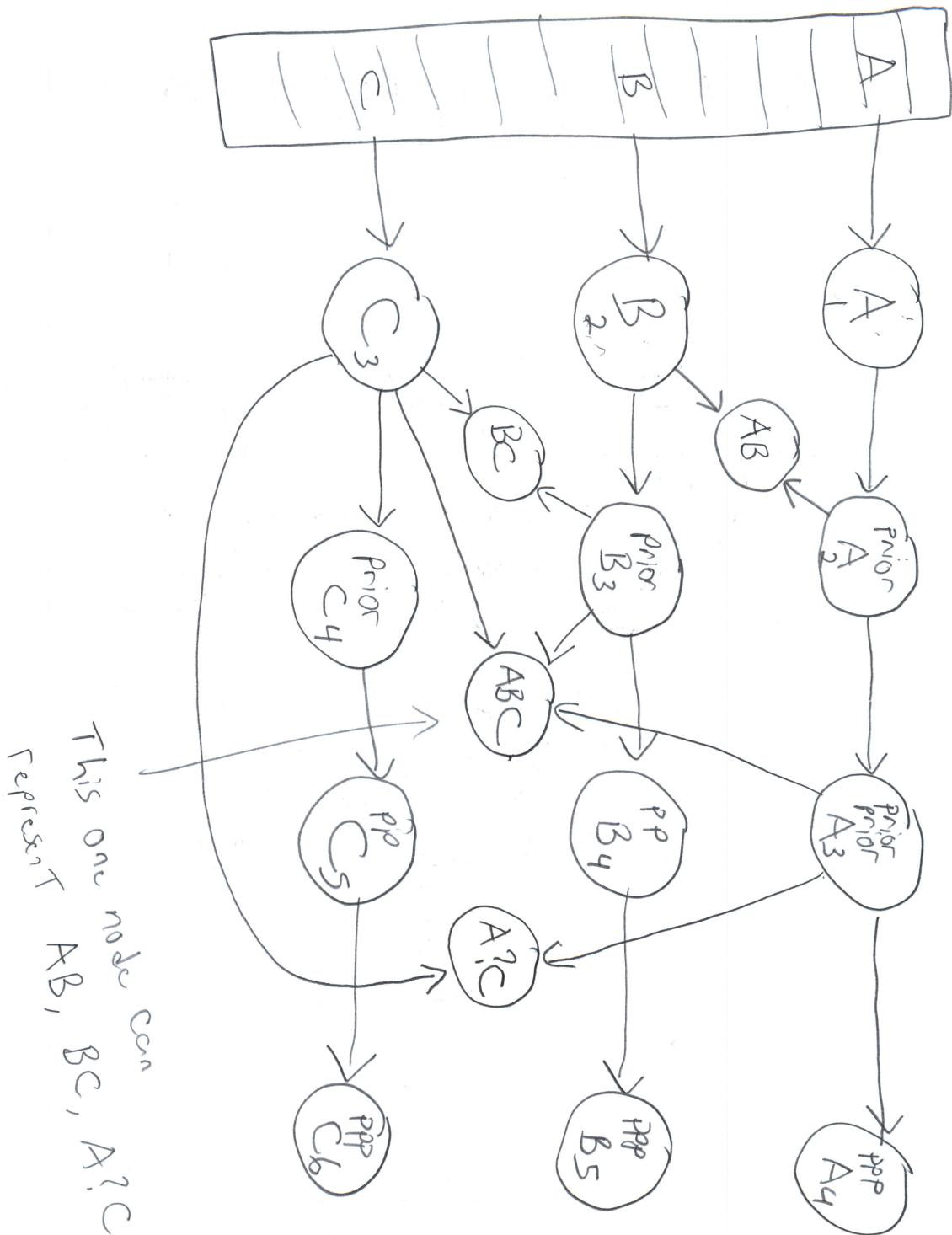
(3)

Hash  
Table

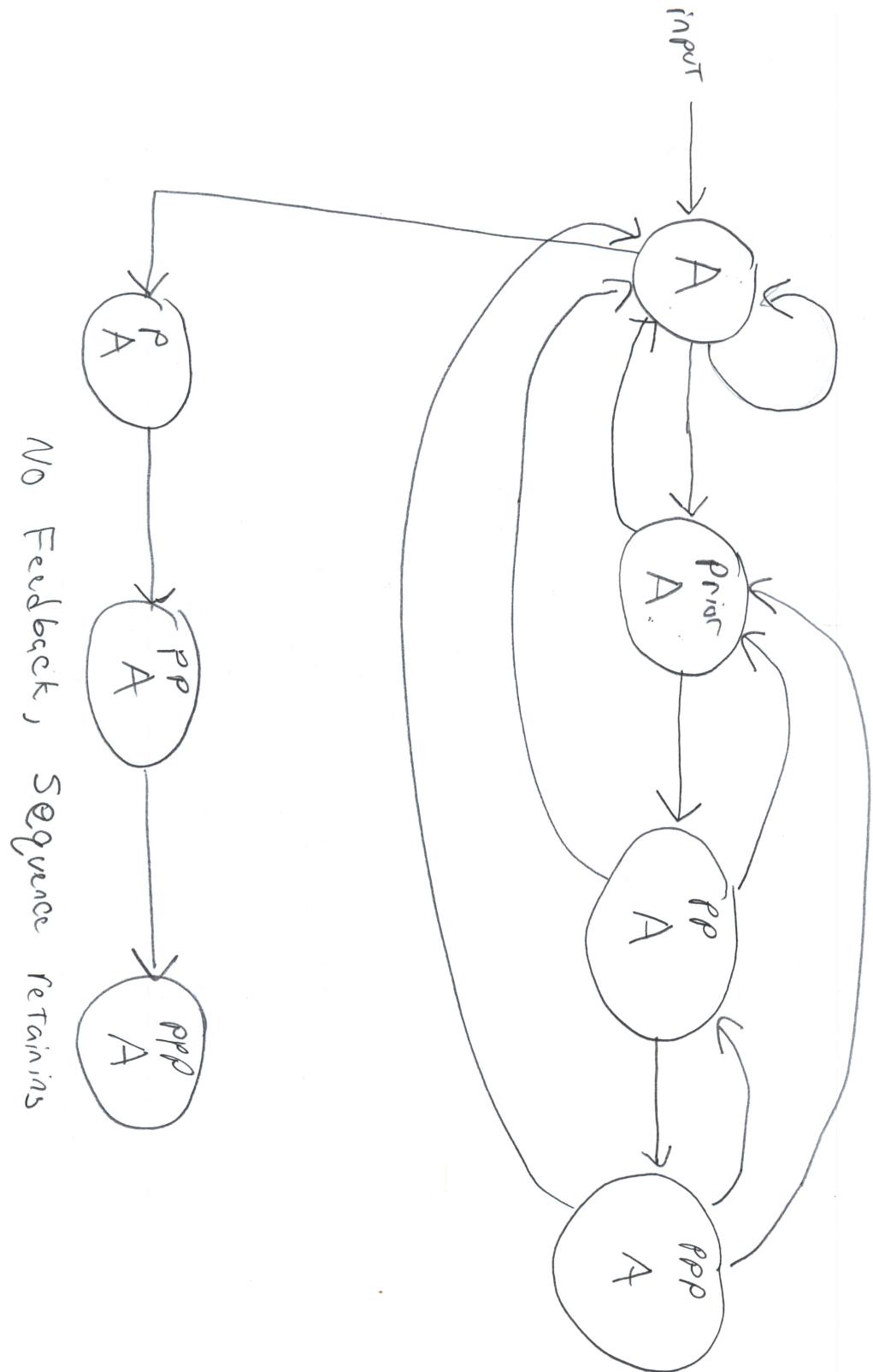
Result

10/24/02

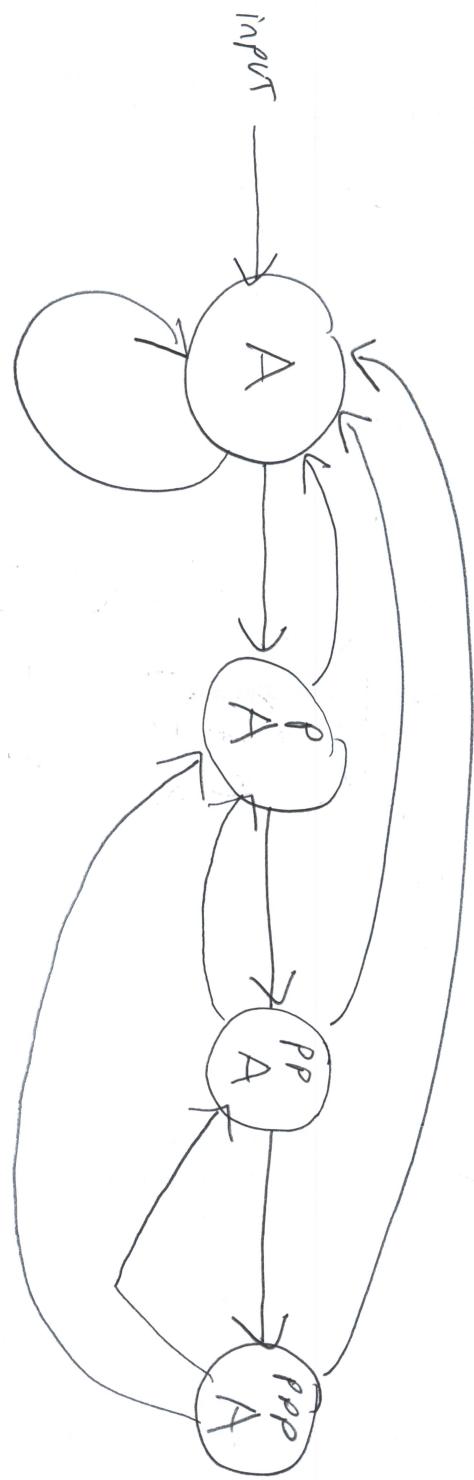
ABC



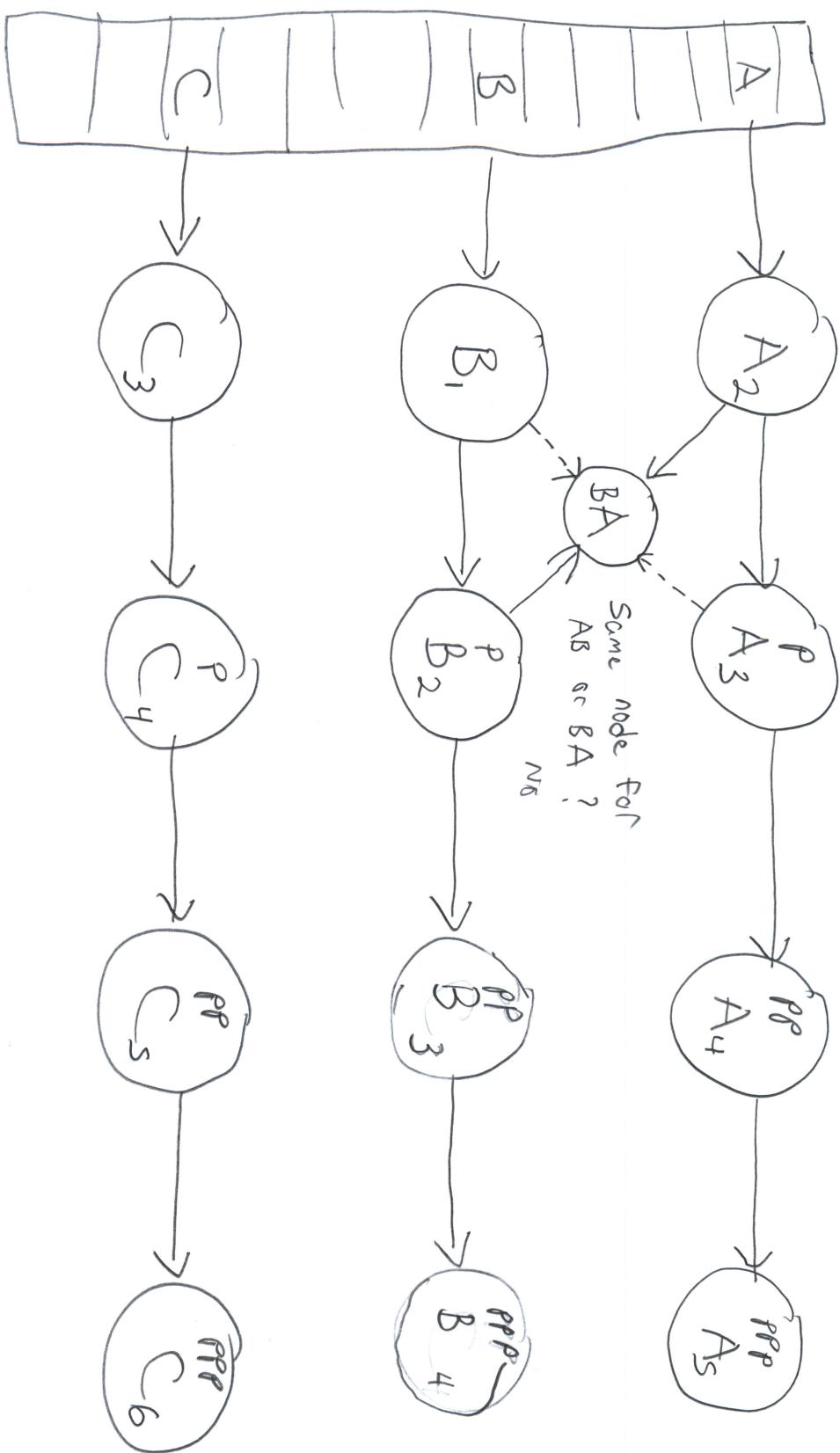
5



6

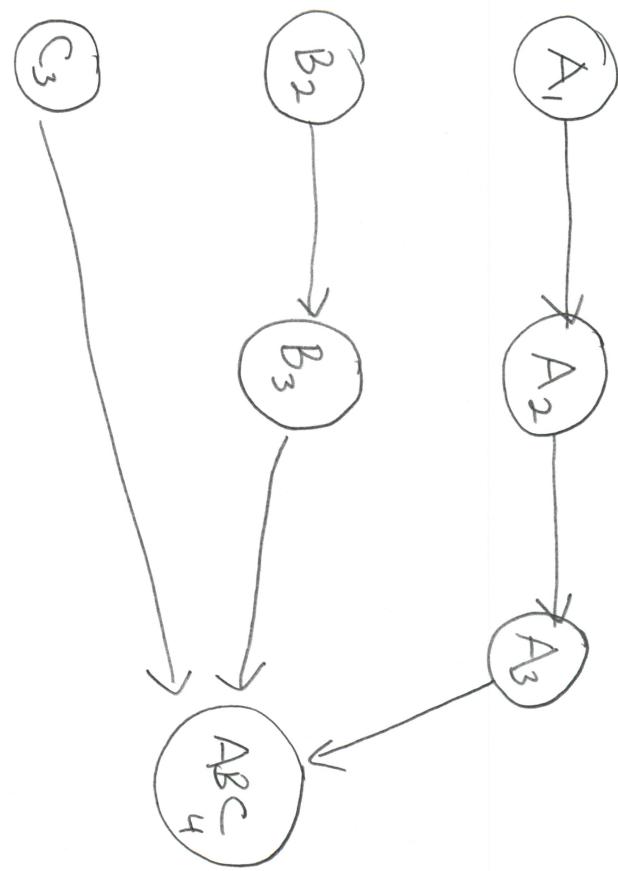


2

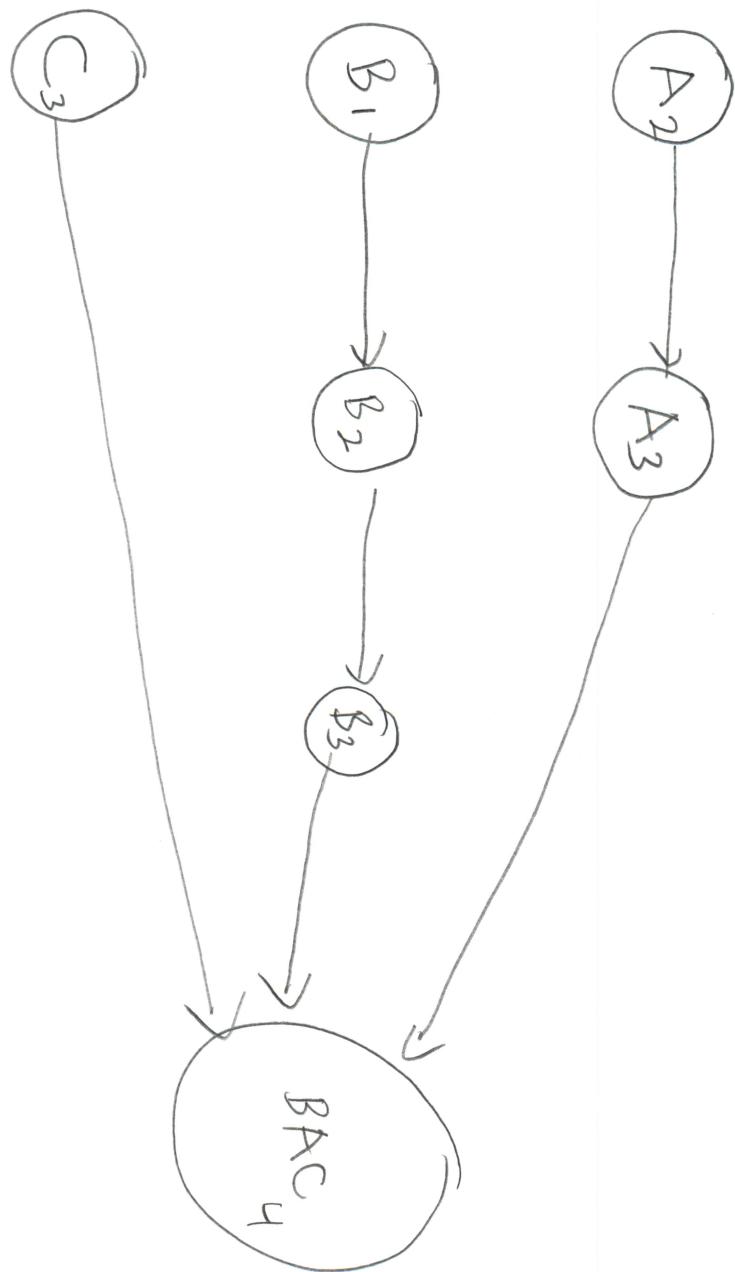


BAC

8

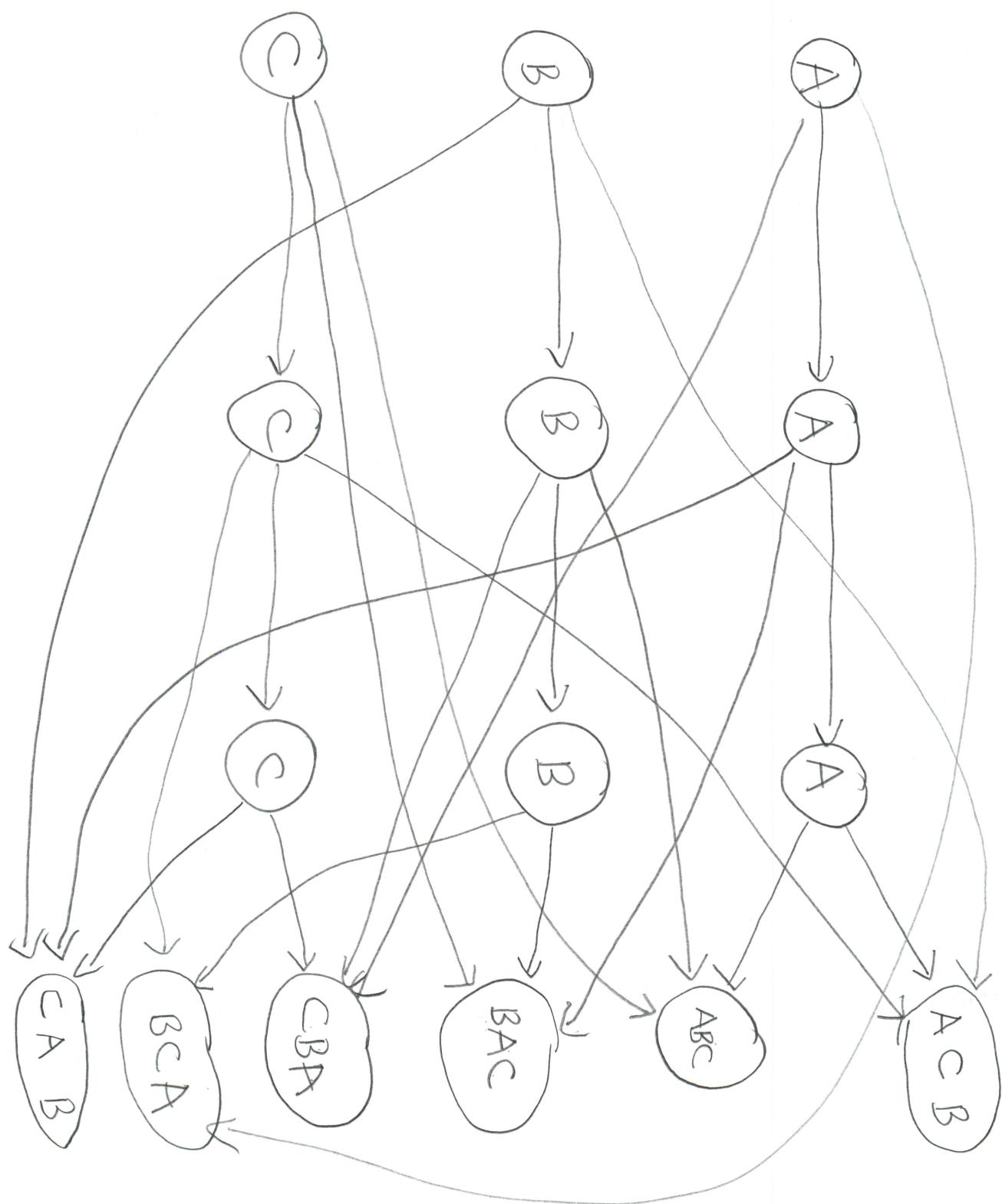
ABC

9



BAC

10



(12)

$$1 = 1$$

$$2 = 2$$

$$3 = 6$$

$$4 = 24?$$

Factorial!  
Symbol

Only if

don't

forget.

13

A B C D

A B ~~C~~ C

A C B D

A C D B

A D B C

A D C B

A A C D ?

but what about

A A A

A A B

A B A

A B B

B A A

B A B

B B A

B B B

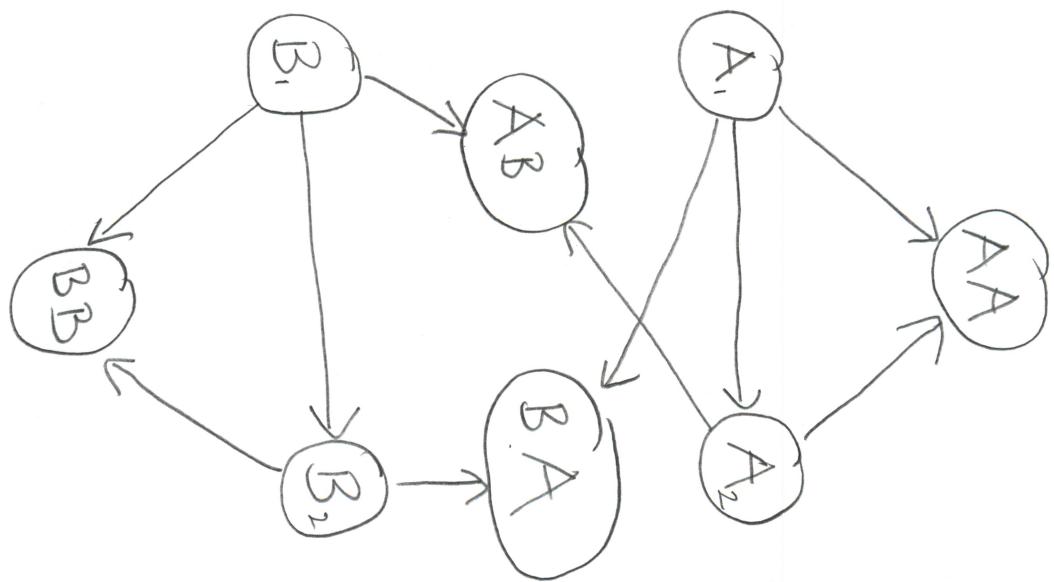
A A  
A

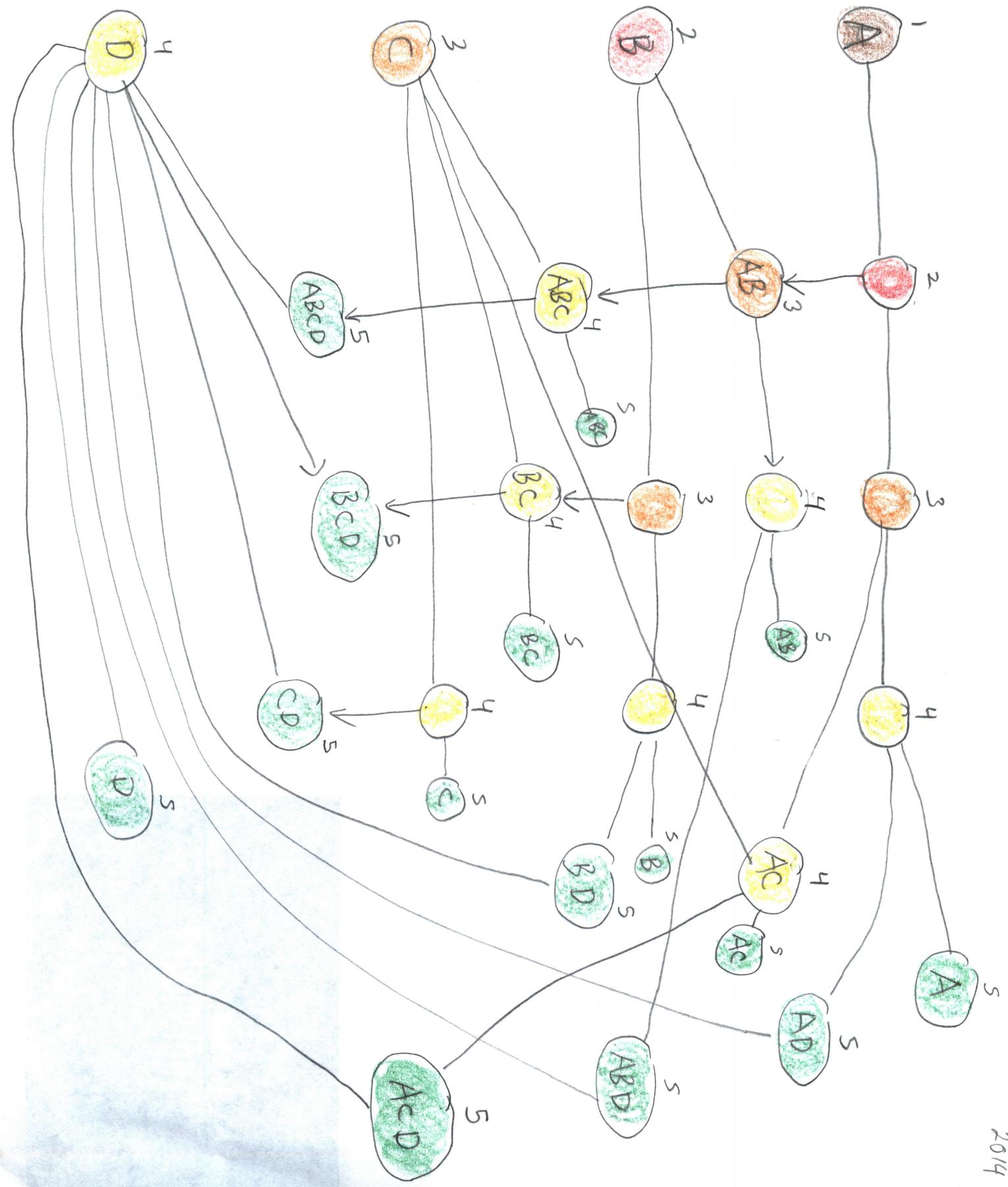
1 = 1

2 = 4

3 = 8

$2^n$





2014

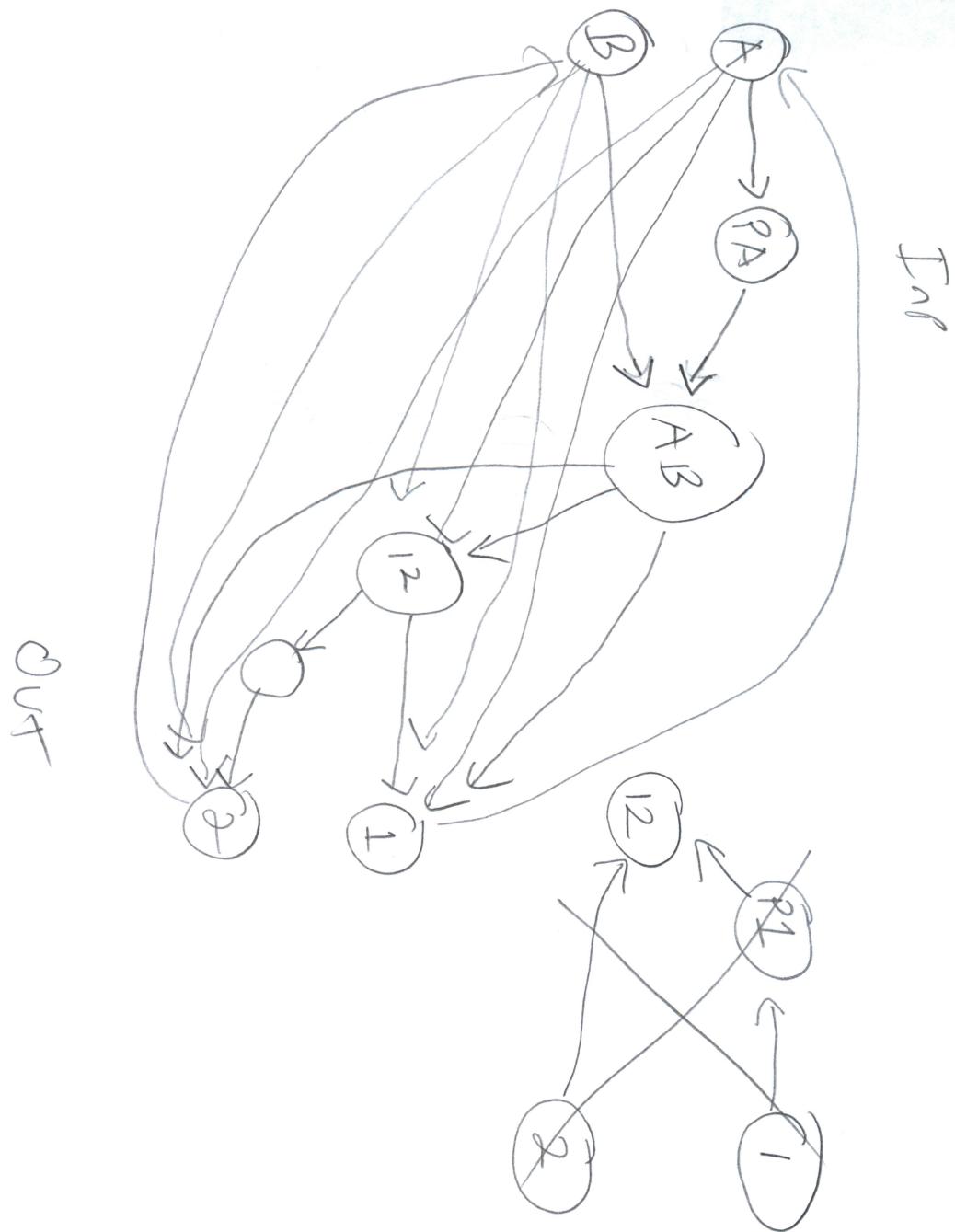
## Types of neurons

① each neuron should have a direct pointer to its extender

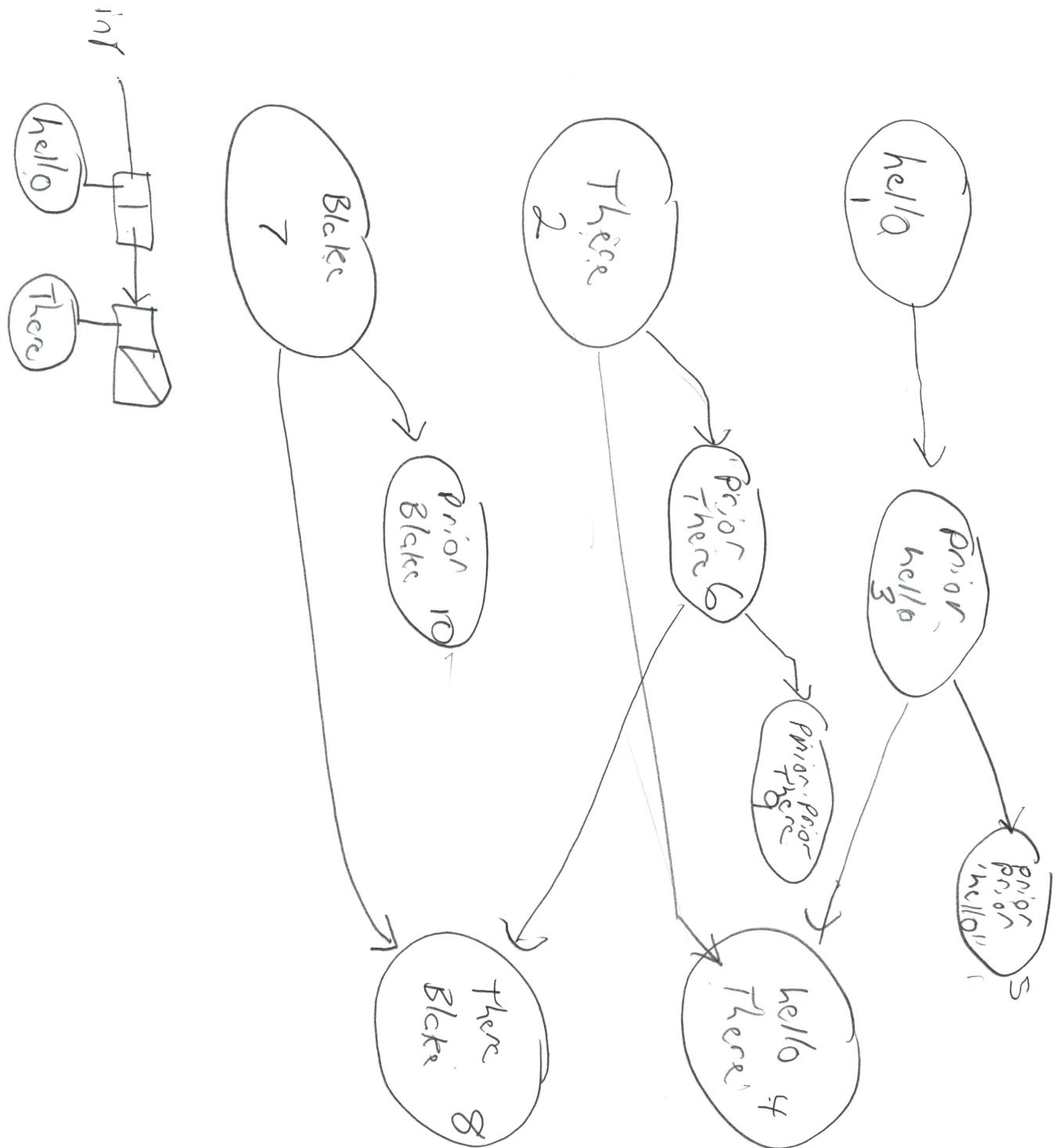
② each extender should have back pointers to its predecessors

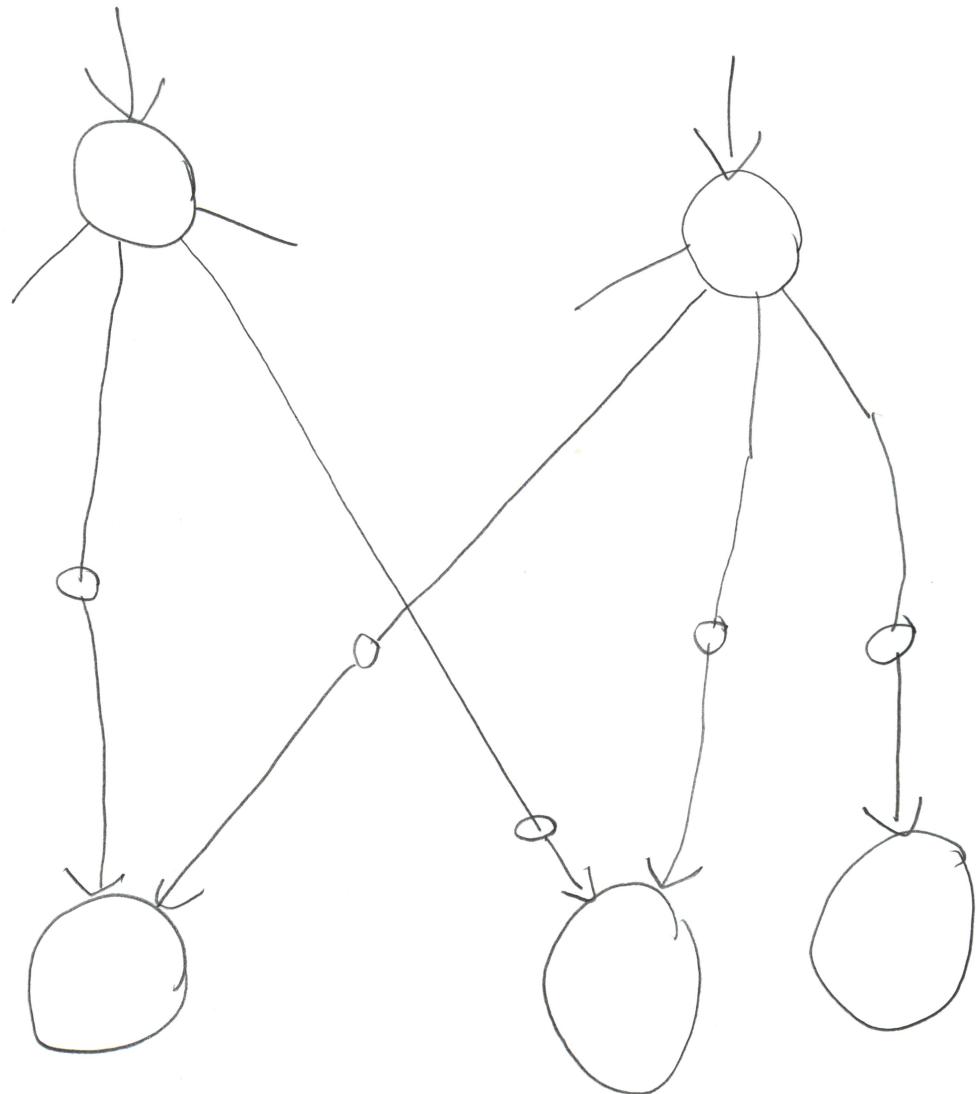
③ Smoothing = always multiple inputs, possibly multiple outputs

④ Final



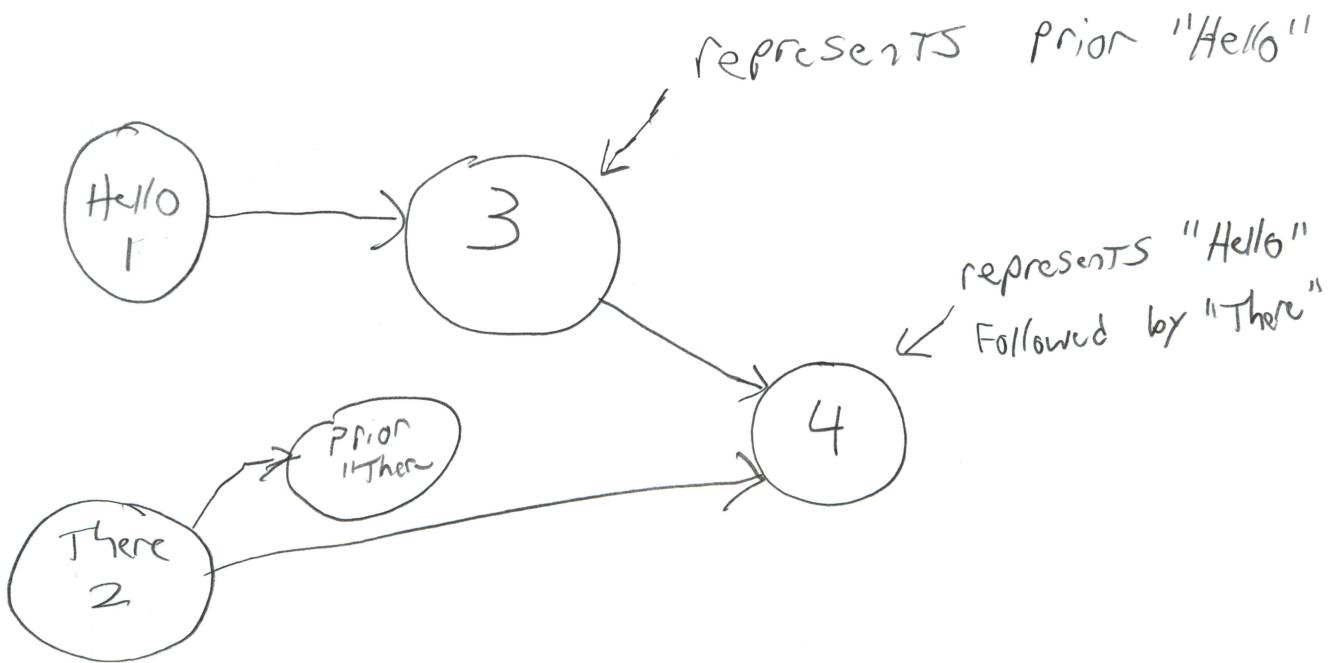
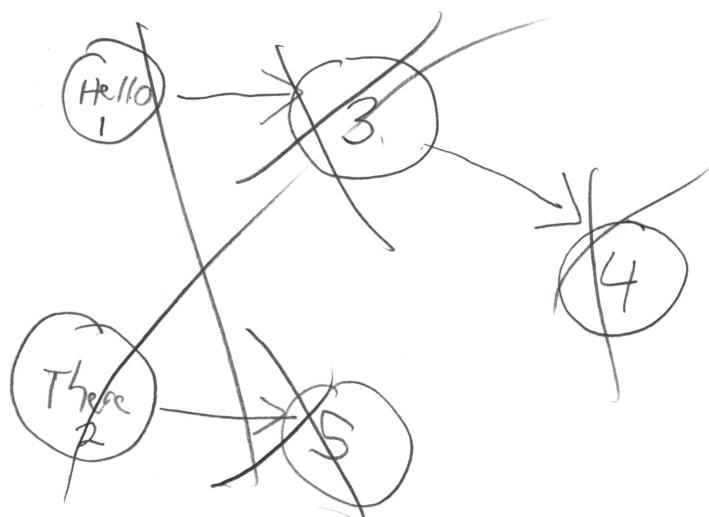
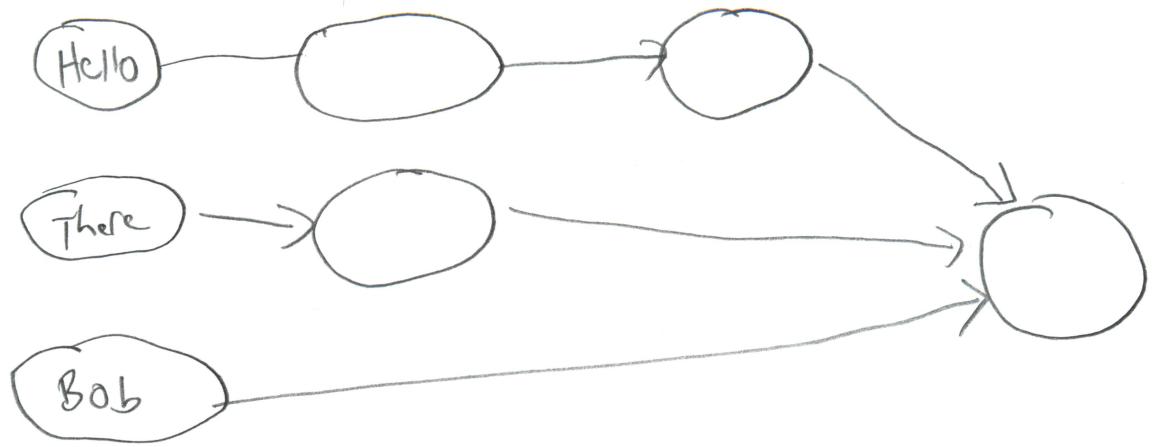
## Simple input nodes





## Rules

- \* No neuron should have multiple connections to the same ~~the~~ target neuron.
- \* The first dendrite off an axon always represents a "prior" excitation of the neuron containing the dendrite.



## input Commands

; quit

; dd dictionary dump

; io Input only

1 1

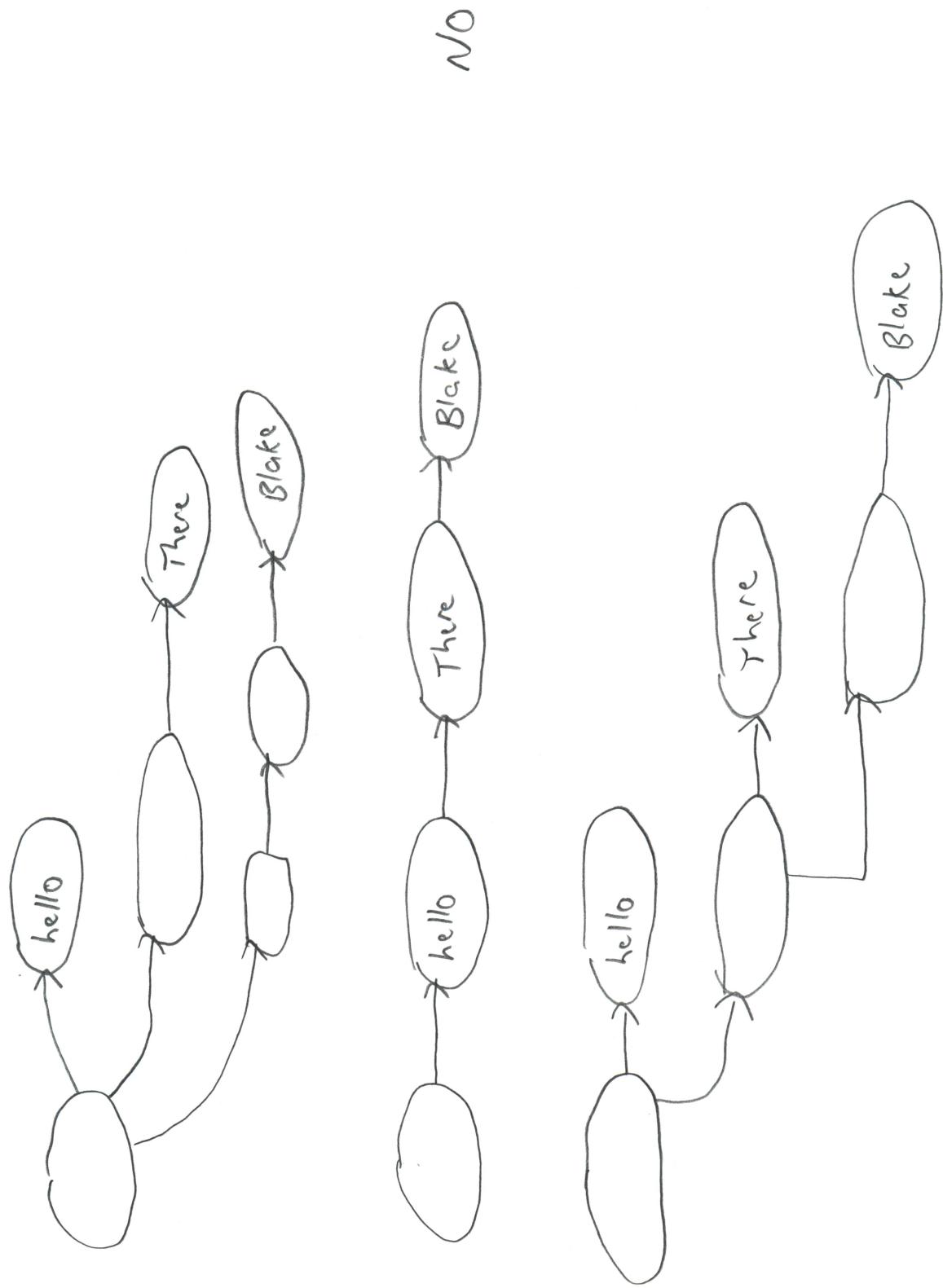
2 2

3 4

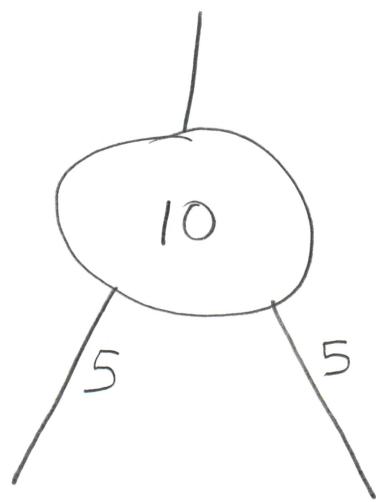
4 8

5 14 ← short only because it is the last Node

## Possible Output Formats



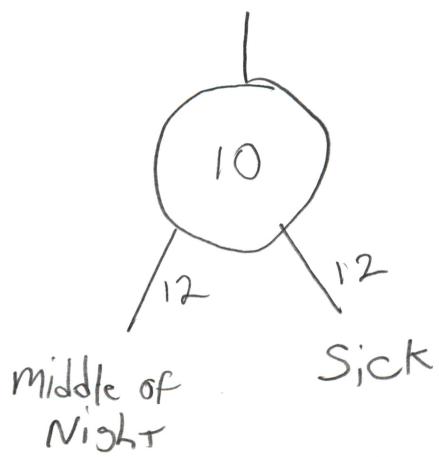
STAY OUT LATE



Good boy

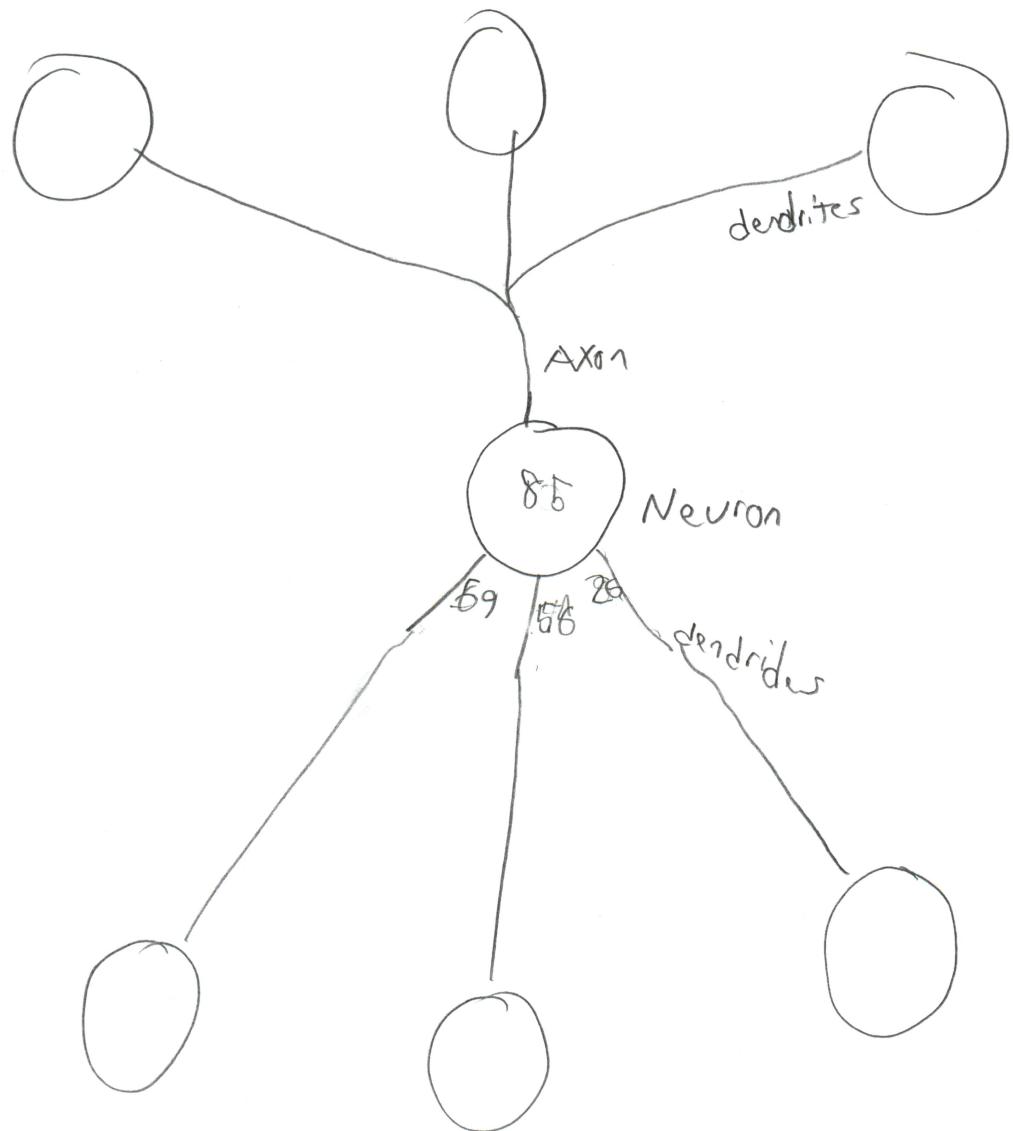
weekend night

STAY IN BED



middle of  
Night

Sick

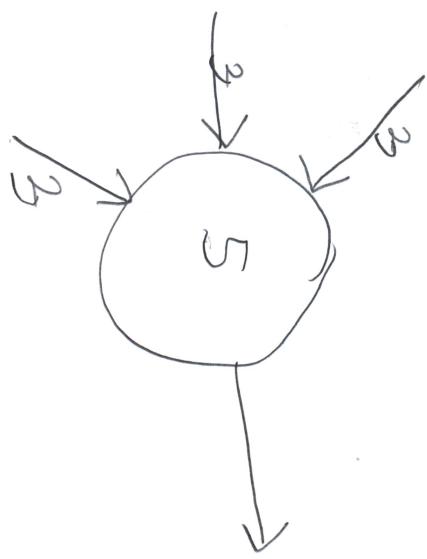


Neuron

(Current-TOTAL      Threshold      dendrites)

Dendrites

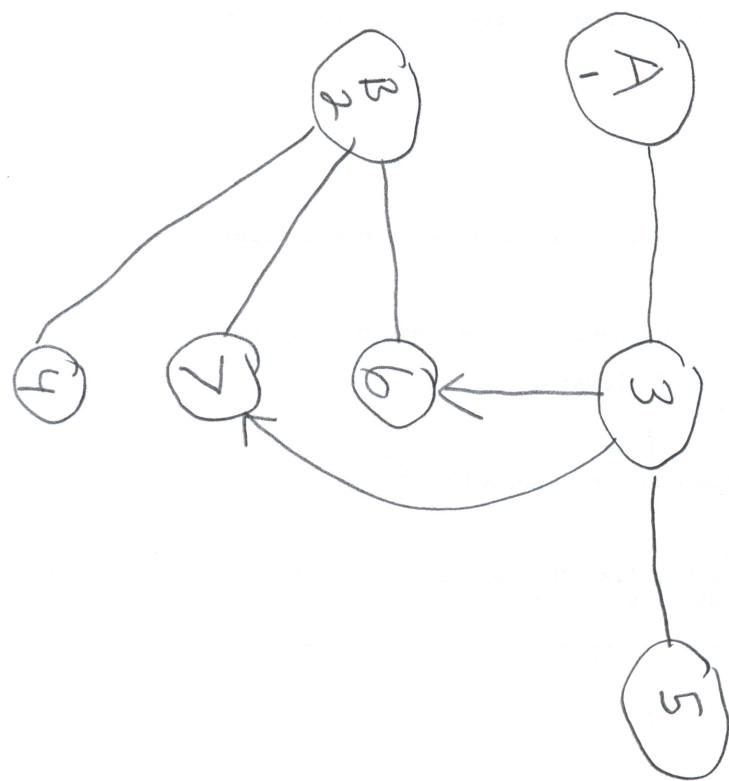
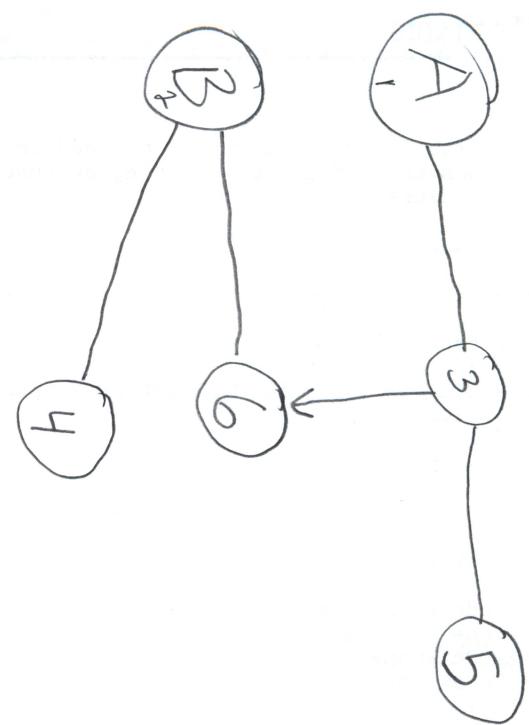
(Weight      neuron      next-dendrite)



$A_1$

$B_2$

$C_3$



when building the forward pointer structure also build a backward structure. The front nodes can point to the back node in order to handle variable parameters.

Say X  
forward pointers can't  
point to X. Back  
pointers can! This  
way front pointers (via  
pointers to back pointers)  
can refer to var X.