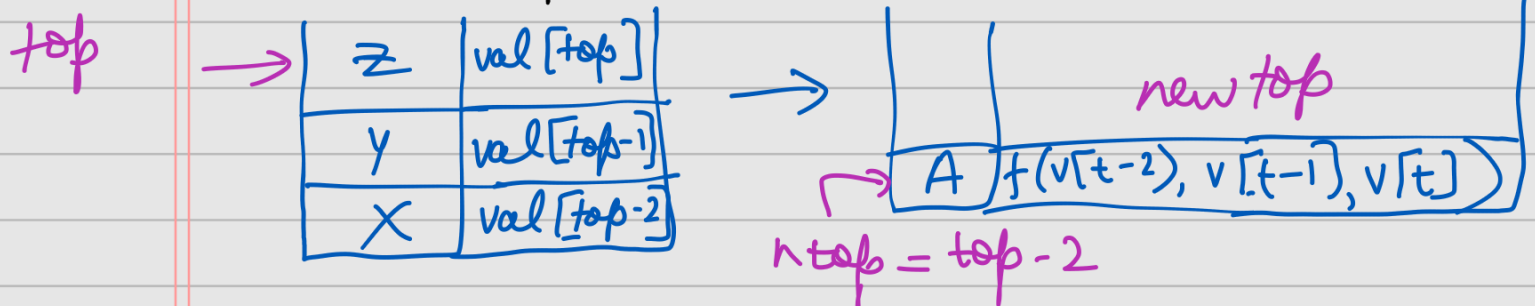


lec 15/04

Bottom Up

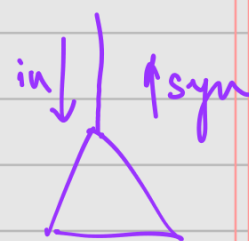


$$E = E + T \quad \text{val}(n_{top}) = \text{val}(top-2) + \text{val}(top)$$

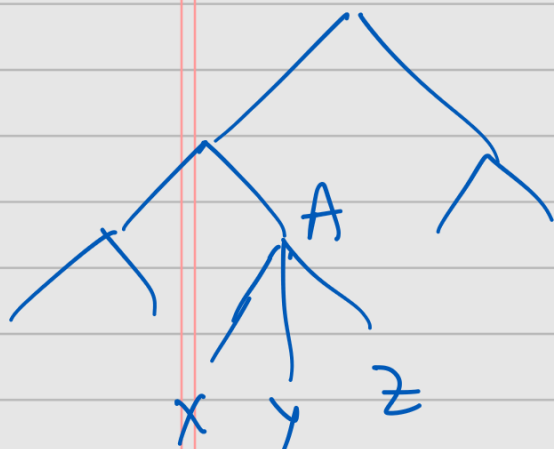
↑
top-1 has terminal

$\text{val}(n_{top}) = \text{val}(top)$
 ↳ just copying. Unnecessary action.

inherited attribute is computed before I enter the subtree. (cos I push the rule to the front)



Synthesized attribute is computed after we have seen the subtree.



$$A \rightarrow XYZ$$

$$y.i = \underline{f(X.s, X.i, A.i)}$$

$$E \Rightarrow T \{R.i = T.val\} \quad R \{E.val = R.s\}$$

$$A \rightarrow XY : A \cdot a = f(X \cdot x, Y \cdot y)$$

$$Y \cdot i \rightarrow UV$$

$$Y \cdot i = X \cdot s$$

$$U \cdot u$$

now U can use $Y \cdot i$.

$$S \rightarrow aA \cdot C$$

$$C \cdot i = A \cdot s$$

A	A · s
a	-

A · s, C · i

$$S \rightarrow aAMC \quad C \cdot i = f(A \cdot s)$$

$$M \rightarrow \epsilon \quad \{M \cdot i = f(A \cdot s)\}$$