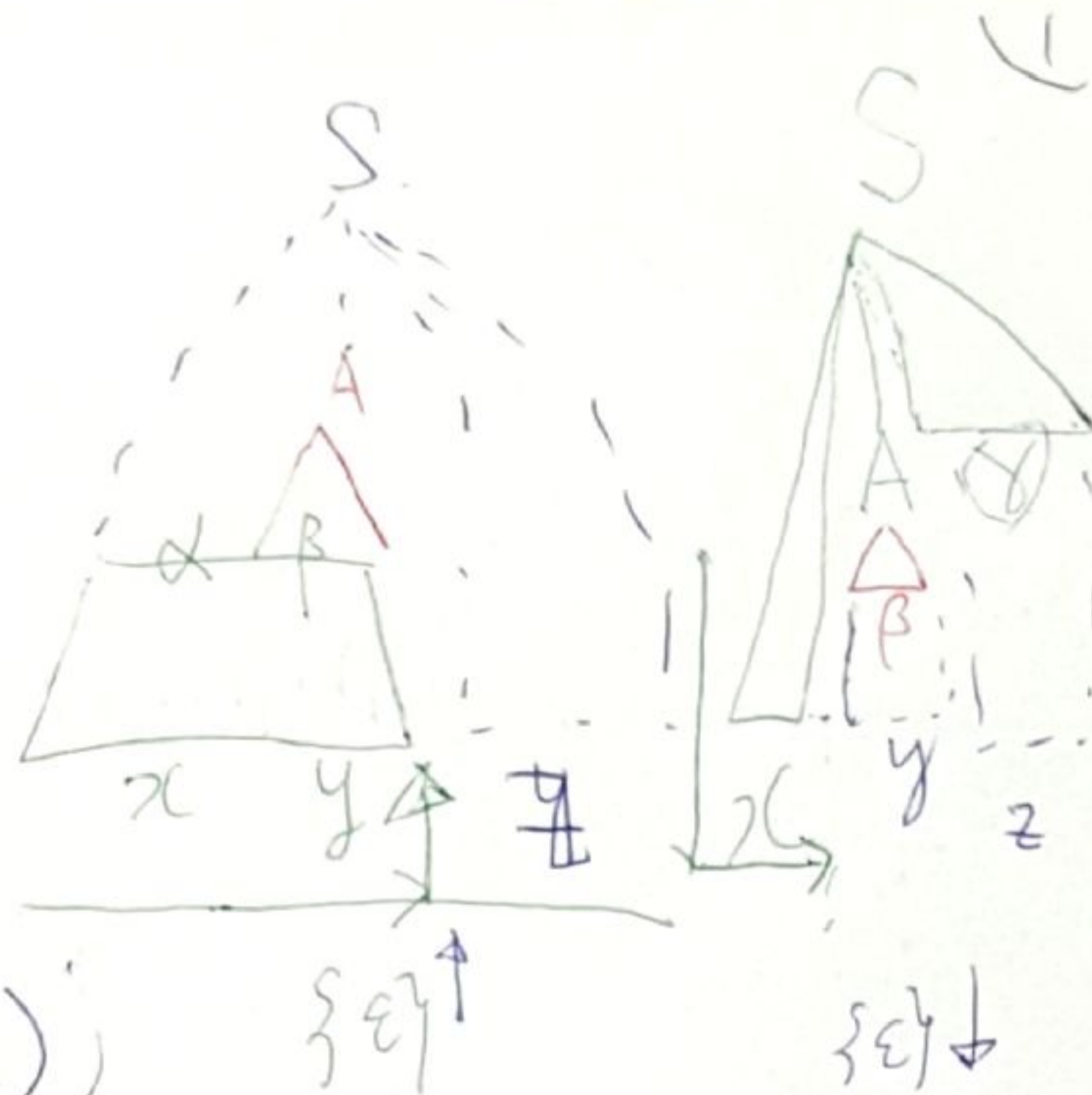


LR parsing

stack
 LR viable prefix (αβ) \mathcal{A}_{LR}^x
 LL viable suffix (αβ) \mathcal{A}_{LL}^x $LR \supset LL$



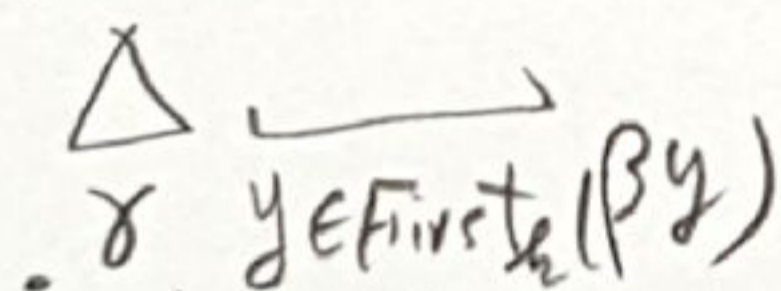
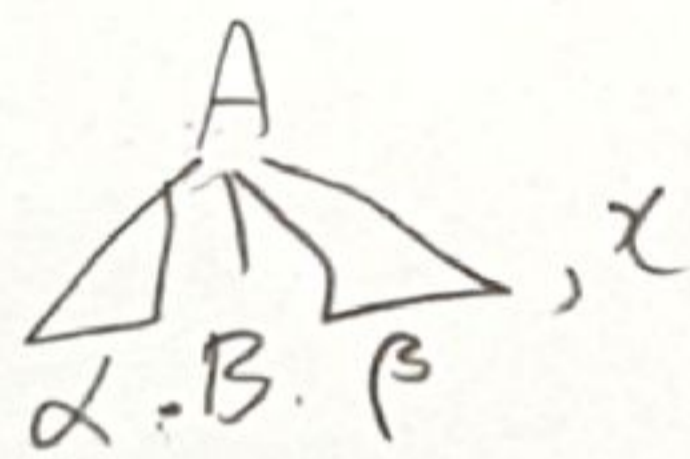
$LR(1) \subset LR(2) \subset LR(3) \dots$

$SLL(k) \subset LL(k)$ ($\forall LL(1) = SLL(1)$)

6.2 Valid $LL(k)$ items, core lookahead $\uparrow = k:yz (\alpha = \epsilon)$

$A \rightarrow \alpha \beta \in P$, $[A \rightarrow \alpha \beta, y]$ is an $LL(k)$ item,
 $y \in \Sigma^{\leq k}$ $y = k:z (\beta = \epsilon)$ $LR(k)$

$[A \rightarrow \alpha \beta, x] \mathcal{A}_{LR(k)} [B \rightarrow \gamma, y]$ where $y \in First_k(\beta x)$ $B \rightarrow \gamma \in P$



$\mathcal{A}_{LR(k)}^x$ item

$[A \rightarrow \alpha \beta, x] \mathcal{A}_{LR(k)}^x [A \rightarrow \alpha X \beta, x] [S' \rightarrow S, \epsilon]$

$[A \rightarrow \alpha X \beta, x] \mathcal{A}_{LL(k)}^x [A \rightarrow \alpha X \beta, y]$ where $y \in First_k(X \beta)$

$[A \rightarrow \alpha \beta, x] \mathcal{A}_{LL(k)} [B \rightarrow \gamma, x]$ $B \rightarrow \gamma \in P$

$[S' \rightarrow S, \epsilon]$ $\mathcal{A}_{LL(k)}^x$ item.

$\mathcal{A}_{LR(k)}^x \left(\dots \left(\mathcal{A}_{LR(k)}^x \left(\mathcal{A}_{LR(k)}^x \left(\mathcal{A}_{LR(k)}^x \right) \right) \right) \dots \right)$

$X_1 X_2 \dots X_n \in (NV \Sigma)^*$ (pop α , push A)

LR: shift $a \in \Sigma$, reduce α to A and goto A in LR

LL: reduce A to α (pop A , push α), shift $a \in \Sigma$

3) 피타고라스의 비록

유리수의 아름다운, (자연수의 눈사람), finite representation
분할작

마이크로세미 $\sqrt{2}$, 1.41592 ...

비분할 작수.

No finite representation (?)

? $\sqrt{2}$ 미분 "연속의 정리"

$$f'(x) = \lim_{\Delta x \rightarrow 0} \frac{f(x + \Delta x) - f(x)}{\Delta x}$$

— continuous math

Recurrence relation
(정리작)

discrete math