LR Parsing

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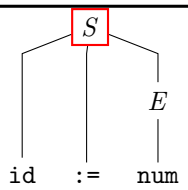
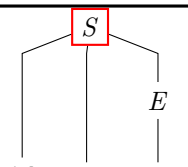
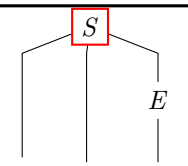
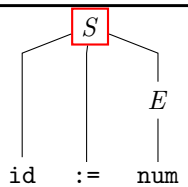
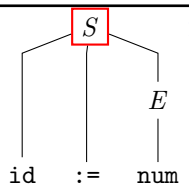
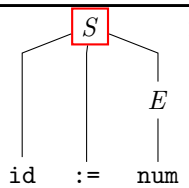
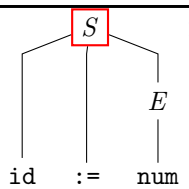
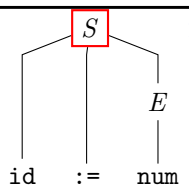
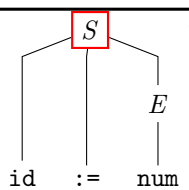
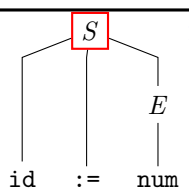
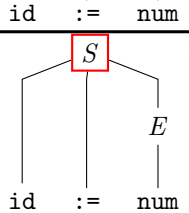
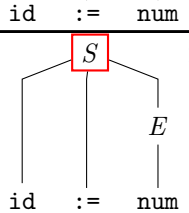
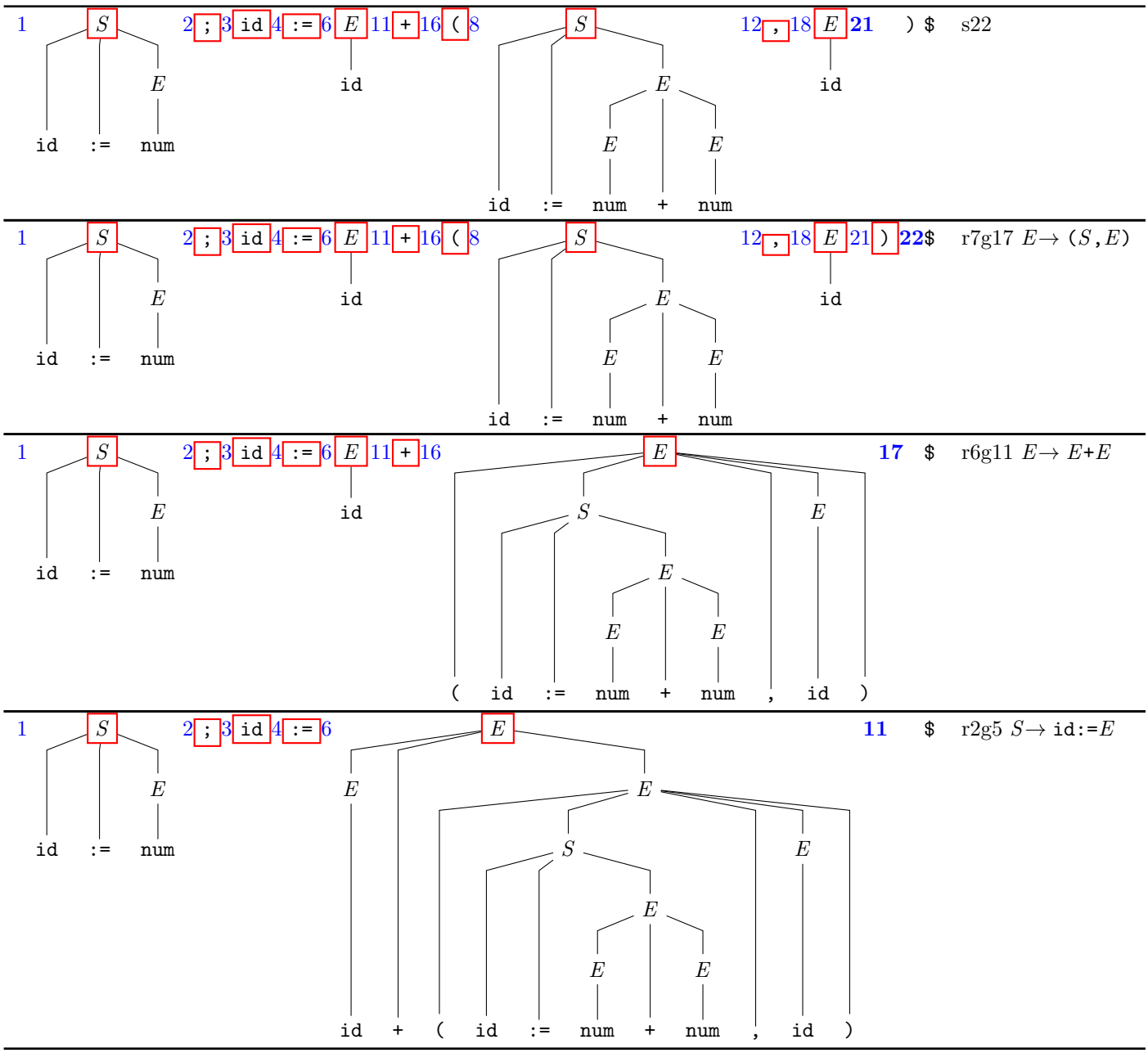
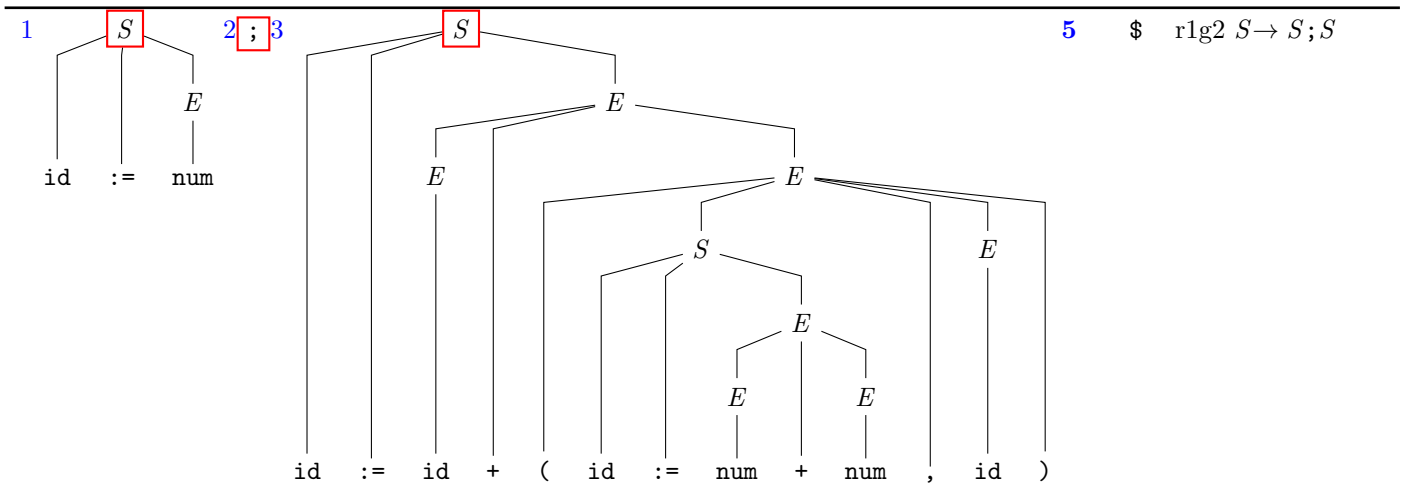
1 Parsing

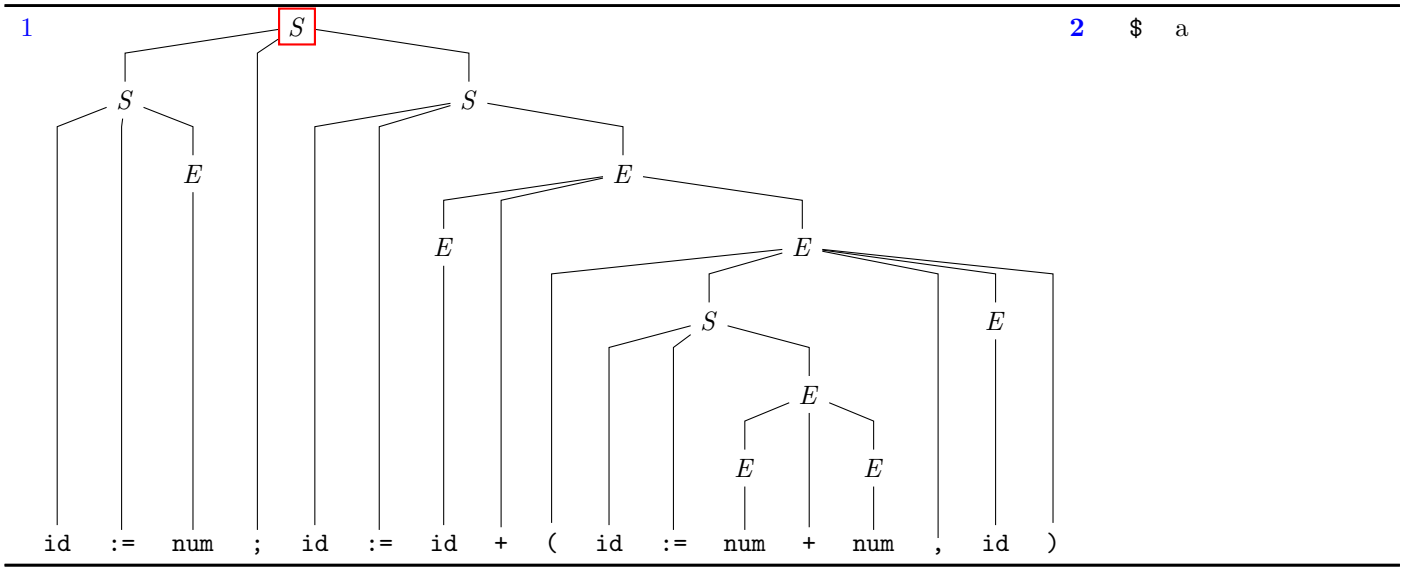
1	`id := num ; id := id + ( id := num + num , id ) $`	s4
1 `id` **4**	`:= num ; id := id + ( id := num + num , id ) $`	s6
1 `id` 4 `:=` **6**	`num ; id := id + ( id := num + num , id ) $`	s10
1 `id` 4 `:=` 6 `num` **10**	`; id := id + ( id := num + num , id ) $`	r5g11 $E \rightarrow$ `num`
1 `id` 4 `:=` 6 E **11** `num`	`; id := id + ( id := num + num , id ) $`	r2g2 $S \rightarrow$ `id:=`E
1  **2**	`; id := id + ( id := num + num , id ) $`	s3
1  2 `;` **3**	`id := id + ( id := num + num , id ) $`	s4
1  2 `;` 3 `id` **4**	`:= id + ( id := num + num , id ) $`	s6
1  2 `;` 3 `id` 4 `:=` **6**	`id + ( id := num + num , id ) $`	s20

1 	2 ; 3 id 4 := 6 id **20**	+ (id := num + num , id) $	r4g11 $E \rightarrow$ id
1 	2 ; 3 id 4 := 6 E **11**	+ (id := num + num , id) $	s16
1 	2 ; 3 id 4 := 6 E 11 + **16**	(id := num + num , id) $	s8
1 	2 ; 3 id 4 := 6 E 11 + 16 (**8**	id := num + num , id) $	s4
1 	2 ; 3 id 4 := 6 E 11 + 16 (8 id **4**	:= num + num , id) $	s6
1 	2 ; 3 id 4 := 6 E 11 + 16 (8 id 4 := **6**	num + num , id) $	s10
1 	2 ; 3 id 4 := 6 E 11 + 16 (8 id 4 := 6 num **10**	+ num , id) $	r5g11 $E \rightarrow$ num
1 	2 ; 3 id 4 := 6 E 11 + 16 (8 id 4 := 6 E **11**	+ num , id) $	s16

1 $\boxed{S}$ (id := E (num))	2 $\boxed{;}$ 3 $\boxed{\texttt{id}}$ 4 $\boxed{:=}$ 6 $\boxed{E}$ (id) 11 $\boxed{+}$ 16 $\boxed{(}$ 8 $\boxed{\texttt{id}}$ 4 $\boxed{:=}$ 6 $\boxed{E}$ (num) 11 $\boxed{+}$ **16**	num , id) $	s10
1 $\boxed{S}$ (id := E (num))	2 $\boxed{;}$ 3 $\boxed{\texttt{id}}$ 4 $\boxed{:=}$ 6 $\boxed{E}$ (id) 11 $\boxed{+}$ 16 $\boxed{(}$ 8 $\boxed{\texttt{id}}$ 4 $\boxed{:=}$ 6 $\boxed{E}$ (num) 11 $\boxed{+}$ 16 $\boxed{\texttt{num}}$ **10**	, id) $	r5g17 $E \rightarrow$ num
1 $\boxed{S}$ (id := E (num))	2 $\boxed{;}$ 3 $\boxed{\texttt{id}}$ 4 $\boxed{:=}$ 6 $\boxed{E}$ (id) 11 $\boxed{+}$ 16 $\boxed{(}$ 8 $\boxed{\texttt{id}}$ 4 $\boxed{:=}$ 6 $\boxed{E}$ (num) 11 $\boxed{+}$ 16 $\boxed{E}$ (num) **17**	, id) $	r6g11 $E \rightarrow E$+E
1 $\boxed{S}$ (id := E (num))	2 $\boxed{;}$ 3 $\boxed{\texttt{id}}$ 4 $\boxed{:=}$ 6 $\boxed{E}$ (id) 11 $\boxed{+}$ 16 $\boxed{(}$ 8 $\boxed{\texttt{id}}$ 4 $\boxed{:=}$ 6 $\boxed{E}$ (E (num) + E (num)) **11**	, id) $	r2g12 $S \rightarrow$ id:=E
1 $\boxed{S}$ (id := E (num))	2 $\boxed{;}$ 3 $\boxed{\texttt{id}}$ 4 $\boxed{:=}$ 6 $\boxed{E}$ (id) 11 $\boxed{+}$ 16 $\boxed{(}$ 8 S (id := E (E (num) + E (num))) **12**	, id) $	s18
1 $\boxed{S}$ (id := E (num))	2 $\boxed{;}$ 3 $\boxed{\texttt{id}}$ 4 $\boxed{:=}$ 6 $\boxed{E}$ (id) 11 $\boxed{+}$ 16 $\boxed{(}$ 8 S (id := E (E (num) + E (num))) 12 $\boxed{,}$ **18**	id) $	s20
1 $\boxed{S}$ (id := E (num))	2 $\boxed{;}$ 3 $\boxed{\texttt{id}}$ 4 $\boxed{:=}$ 6 $\boxed{E}$ (id) 11 $\boxed{+}$ 16 $\boxed{(}$ 8 S (id := E (E (num) + E (num))) 12 $\boxed{,}$ 18 $\boxed{\texttt{id}}$ **20**	) $	r4g21 $E \rightarrow$ id


1 S 2 ; 3 id 4 := 6 E 11 + 16 (8 S 12 , 18 E 21) $ s22
id := num
id
id := num + num
id
1 S 2 ; 3 id 4 := 6 E 11 + 16 (8 S 12 , 18 E 21) 22$ r7g17 E→ (S,E)
id := num
id
id := num + num
id
1 S 2 ; 3 id 4 := 6 E 11 + 16 E 17 $ r6g11 E→ E+E
id := num
id
(id := num + num , id)
1 S 2 ; 3 id 4 := 6 E 11 $ r2g5 S→ id:=E
id := num
id + (id := num + num , id)


1
S
2
;
3
S
5
$
r1g2 S→ S ; S
E
id := num
E
E
E
S
E
E
E
E
id := id + (id := num + num , id)


1
S
2
$
a
S
S
E
E
E
E
S
E
E
E
E
id := num ; id := id + (id := num + num , id)