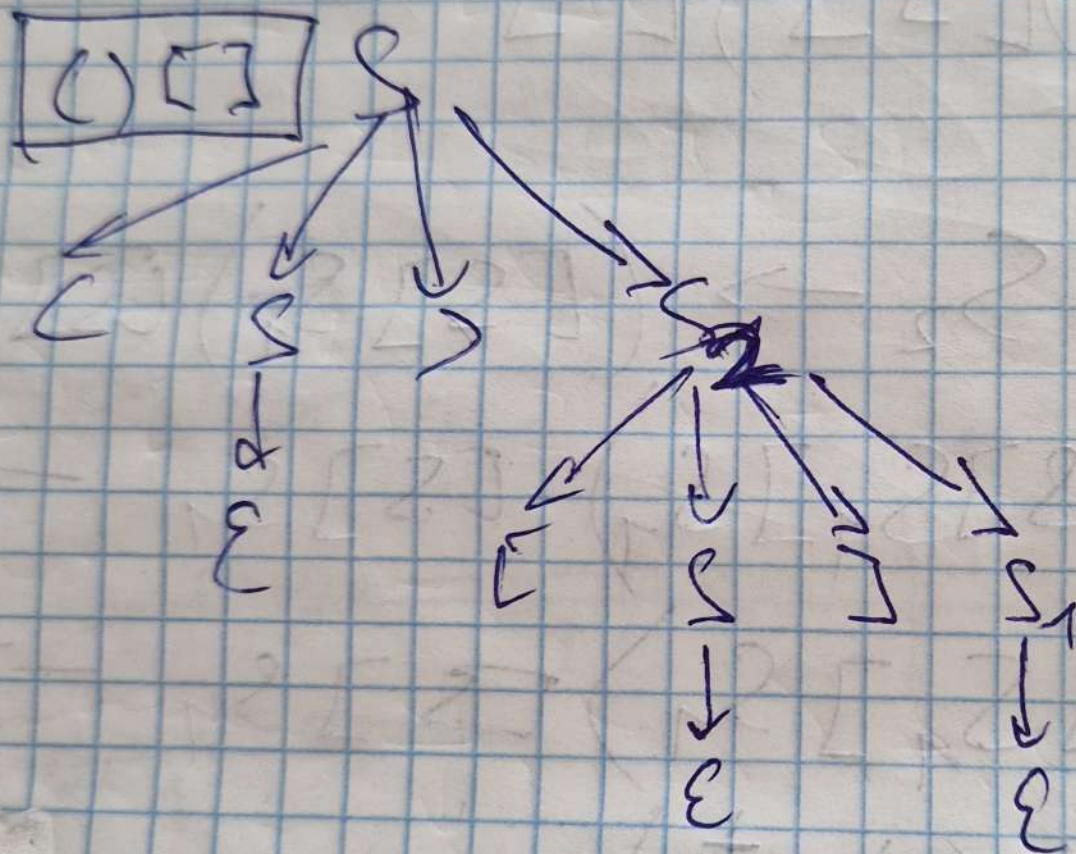
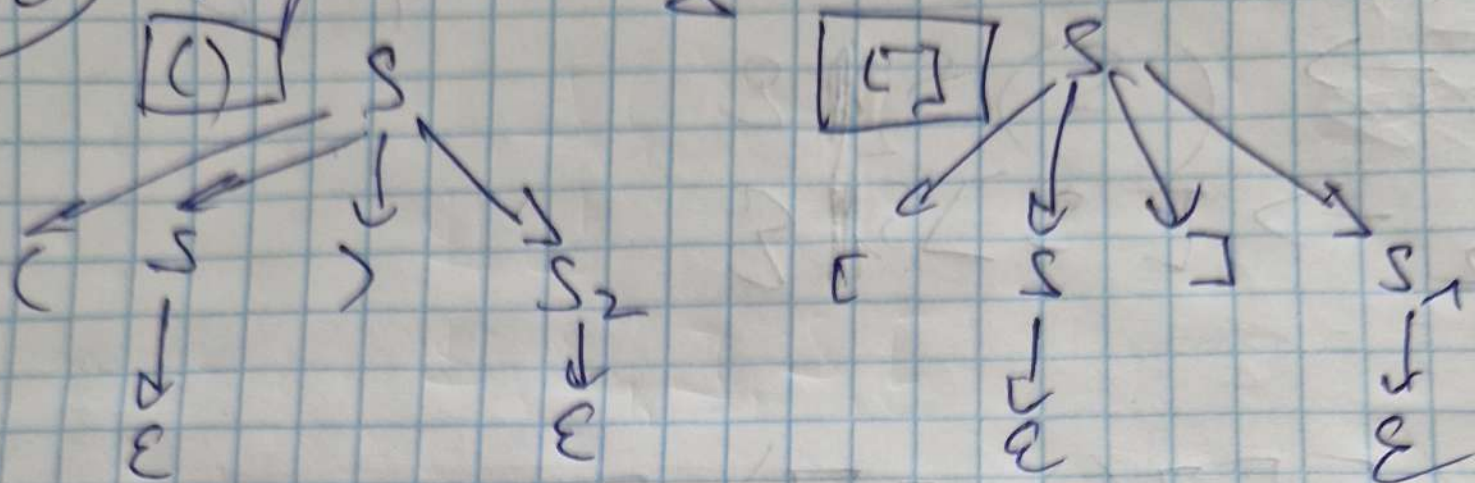


$$\begin{aligned}
 S &\rightarrow (S)S_2 \mid \boxed{S}S_1 \mid \epsilon \\
 \textcircled{1} S_1 &\rightarrow (S)S_2 \mid \epsilon \\
 S_2 &\rightarrow \boxed{S}S_1 \mid \epsilon
 \end{aligned}$$

② возможные генотипы:



• невозможные генотипы

( ) ( ) , ( ( ) ( ) ) .



$$\textcircled{1} S \rightarrow (S)S_2 \mid [S]S_1 \mid \epsilon$$

$$S_1 \rightarrow (S)S_2 \mid \epsilon$$

$$S_2 \rightarrow [S]S_1 \mid \epsilon$$

$$\text{First}(S_1) = \{ (, \epsilon \}$$

$$\text{First}(S_2) = \{ [, \epsilon \}$$

$$\text{First}(S) = \{ (, [, \epsilon \}$$

$$\text{Follow}(S_1) = \{ ), ], \$ \}$$

$$\text{Follow}(S_2) = \{ ), ], \$ \}$$

$$\text{Follow}(S) = \{ ), ], \$ \}$$

N / first	follow	(	[	)	]	\$
S	(, [, ε	) , [ , #	S → (S)S <sub>2</sub> S → [S]S <sub>1</sub> S → ε	S → (S)S <sub>2</sub> S → [S]S <sub>1</sub> S → ε	S → (S)S <sub>2</sub> S → [S]S <sub>1</sub> S → ε	S → (S)S <sub>2</sub> S → [S]S <sub>1</sub> S → ε
S <sub>1</sub>	(, ε	[, (, ], #	S <sub>1</sub> → (S)S <sub>2</sub> S <sub>1</sub> → ε	S <sub>1</sub> → (S)S <sub>2</sub> S <sub>1</sub> → ε	S <sub>1</sub> → (S)S <sub>2</sub> S <sub>1</sub> → ε	S <sub>1</sub> → (S)S <sub>2</sub> S <sub>1</sub> → ε
S <sub>2</sub>	[, ε	(, (, ], #	S <sub>2</sub> → [S]S <sub>1</sub> S <sub>2</sub> → ε	S <sub>2</sub> → [S]S <sub>1</sub> S <sub>2</sub> → ε	S <sub>2</sub> → [S]S <sub>1</sub> S <sub>2</sub> → ε	S <sub>2</sub> → [S]S <sub>1</sub> S <sub>2</sub> → ε



# Список. фразы

1)  $\downarrow$   
[ ] ( ) [ ] ( ) \$

Стек: \$(S)

Стек: \$, S, ], S, (

2)  $\downarrow$   
[ ] ( ) [ ] ( ) \$

Стек: \$, S, (, S) (S → ε)

3)  $\downarrow$   
[ ] ( ) [ ] ( ) \$

Стек: \$(S)

Стек: \$, S<sub>2</sub>, ), S, (

4)  $\downarrow$   
[ ] ( ) [ ] ( ) \$

Стек: \$, S<sub>2</sub>, (, S) (S → ε)

5)  $\downarrow$   
[ ] ( ) [ ] ( ) \$

Стек: \$, S<sub>2</sub>\*

Стек: \$, S<sub>1</sub>, ], S, (

6)  $\downarrow$   
[ ] ( ) [ ] ( ) \$

Стек: \$, S<sub>1</sub>, (, S) (S → ε)



2)  $\square \square () \square \square () \downarrow \#$

Stack:  $\$, (S_1)$

Stack:  $\$, S_2, ), S, ($

3)  $\square \square () \square \square () \downarrow \#$

Stack:  $\$, S_2, ( ), (S) \quad S \rightarrow \varepsilon$

4)  $\square \square () \square \square () \downarrow \#$

Stack:  $\$, (S_2)$

$S_2 \rightarrow \varepsilon$

Stack:  $(\$)$

money generated.

2) 1)  $\downarrow (( ( ) ) ) \#$

Stack:  $\$, (S)$

Stack:  $\$, S_2, ), S, (($

2)  $\downarrow (( ( ) ) ) \#$

Stack:  $\$, S_2, ), (S)$

Stack:  $\$, S_2, ), S_2, ), S, (($

3)  $\downarrow (( ( ) ) ) \#$

Stack:  $\$, S_2, ), S_2, ), (S)$

Stack:  $\$, S_2, ), S_2, ), S_2, ), S, (($



4)  $(( ( ( ) ) ) ) \#$

Stack:  $\$, S_2, ), S_2, ), S_2, (, (S_2 \rightarrow \epsilon$

5)  $(( ( ( ) ) ) ) \#$

Stack:  $\$, S_2, ), S_2, (, (S_2 \rightarrow \epsilon$

6)  $(( ( ( ) ) ) ) \#$

Stack:  $\$, S_2, (, (S_2 \rightarrow \epsilon$

7)  $(( ( ( ) ) ) ) \#$

Stack:  $\$, (S_2 \rightarrow \epsilon$

8)  $(( ( ( ) ) ) ) \#$

Stack:  $\$$

$) \neq \$$  mismatch!