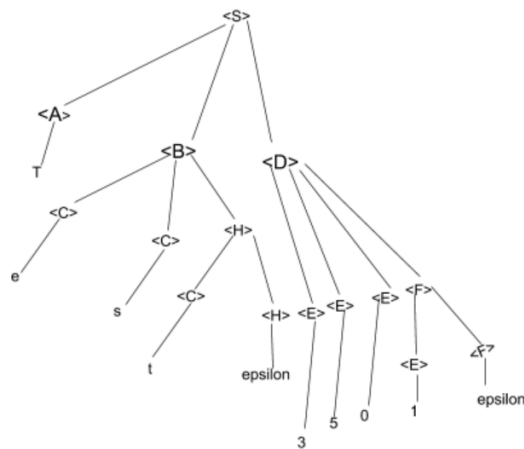


```
<S> --> <A> <B> <D>
<A> --> A|B|C|D|E|F|G|H|I|J|K|L|M|N|O|P|Q|R|S|T|U|V|W|X|Y|Z
<B> ---> <C> <C> <H>
<H> --> <C> <H> | EPSILON
<C> --> a|b|c|d|e|f|g|h|i|j|k|l|m|n|o|p|q|r|s|t|u|v|w|x|y|z
<D> --> <E> <E> <E> <F>
<F> --> <E> <F> | EPSILON
<E> --> 0|1|2|3|4|5|6|7|8|9
```

1b. Parse tree of



2. $\langle \text{assign} \rangle \rightarrow \langle \text{var} \rangle = \langle \text{expr} \rangle$
 $\langle \text{var} \rangle \text{type} = \text{int} = \langle \text{expr} \rangle \text{type} = \text{int}$

2a.

```
<expr> --> <var> + <var>
<expr> type = int --> <var> type=int + <var> type = float/int
<expr> type = float --> <var> type=float + <var> type = int/float
```

3. #attmpt of number 3(part)

```
<expr> --> <var> - <var>
<expr> type = int --> <var>type = int - <var>typr =int/float
<expr>type = float--> <var>type=float - <var>type=int/float
```

#seconde part of number 3

$\langle \text{expr} \rangle \rightarrow \langle \text{var} \rangle$

$\langle \text{expr} \rangle \text{type} = \text{int} \rightarrow \langle \text{var} \rangle \text{type} = \text{int}$

$\langle \text{expr} \rangle \text{type} = \text{float} \rightarrow \langle \text{var} \rangle \text{type} = \text{float/int}$

final portion of number

$\text{var} \rightarrow A|B|C$

$\langle \text{var} \rangle \text{type} = \text{int} \rightarrow A \text{ type} = \text{int} \mid B \text{ type} = \text{int} \mid C \text{ type} = \text{int}$

$\langle \text{var} \rangle \text{type} = \text{float} \rightarrow A \text{ type} = \text{float} \mid B \text{ type} = \text{float} \mid C \text{ type} = \text{float}$