МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РОССИЙСКОЙ ФЕДЕРАЦИИ
Федеральное государственное бюджетное образовательное учреждение высшего образования
«Вятский государственный университет»
Факультет автоматики и вычислительной техники
Кафедра электронных вычислительных машин

Отчет
Лабораторная работа №5 по дисциплине
«Системное программное обеспечение»

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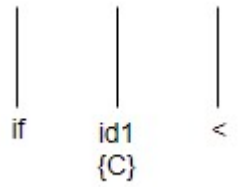
Проверил доцент кафедры ЭВМ _____/Караваева О. В./

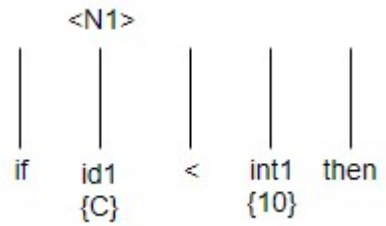
Киров 2017

Построить дерево методом восходящего разбора:

```
if C < 10 then C := B - 4 else A := (C - 15) + (B + 4);
```

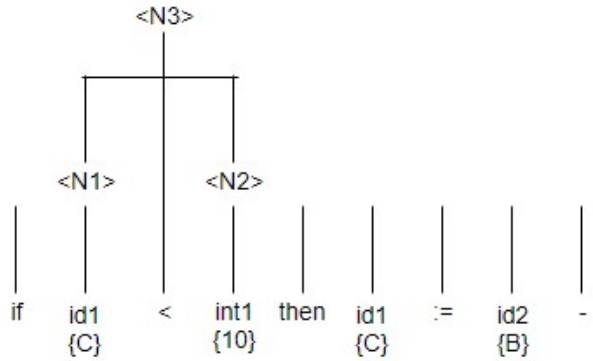



```
... if id1 <
```

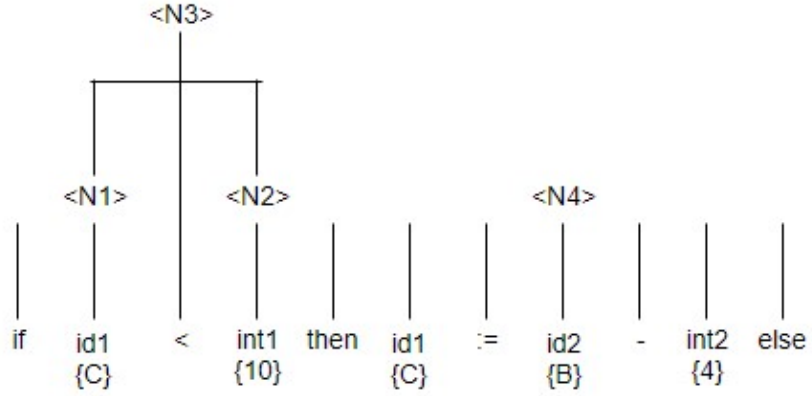



```
... if <N1> < int1 then
```

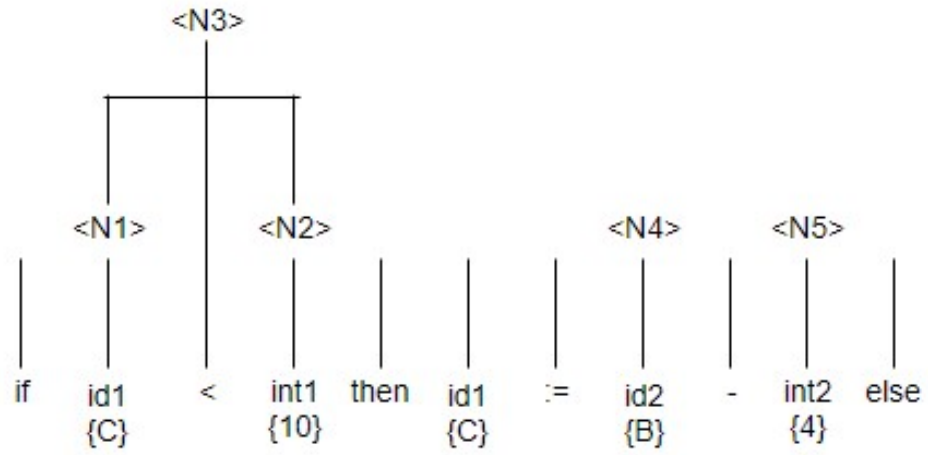

```
... if <N1> < <N2> then
```



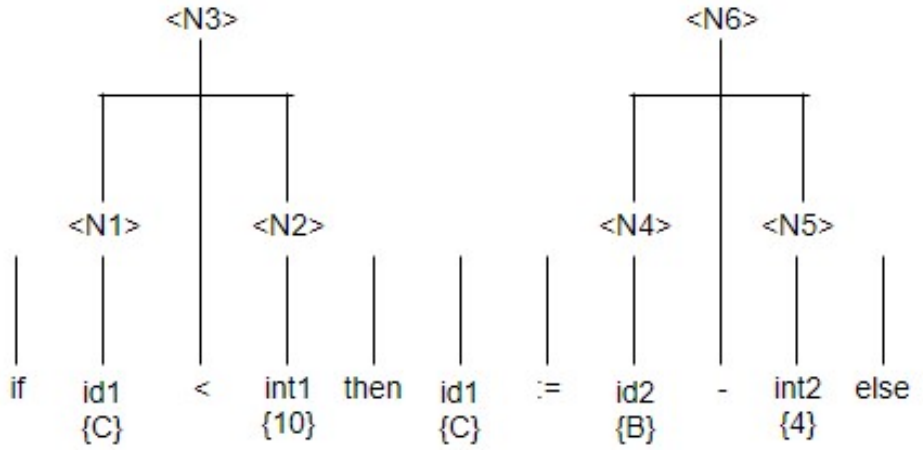

```
... if <N3> then id1 := id2 -

... if <N3> then id1 := <N4> - int2 else
```



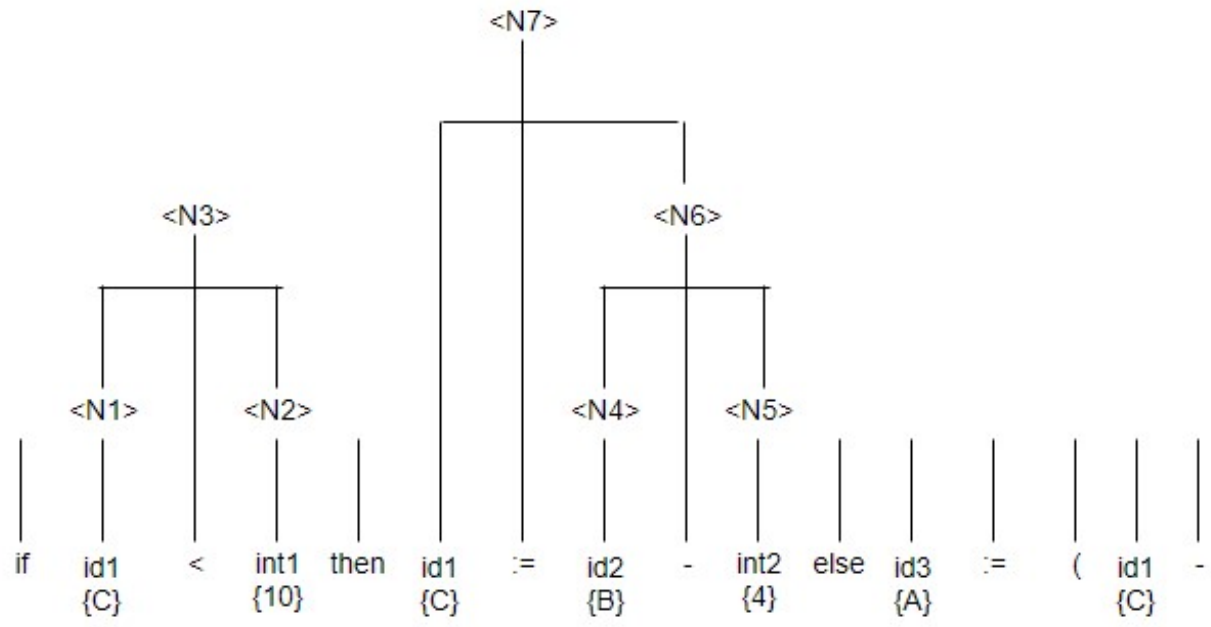
... if <N3> then id1 := <N4> - <N5> else



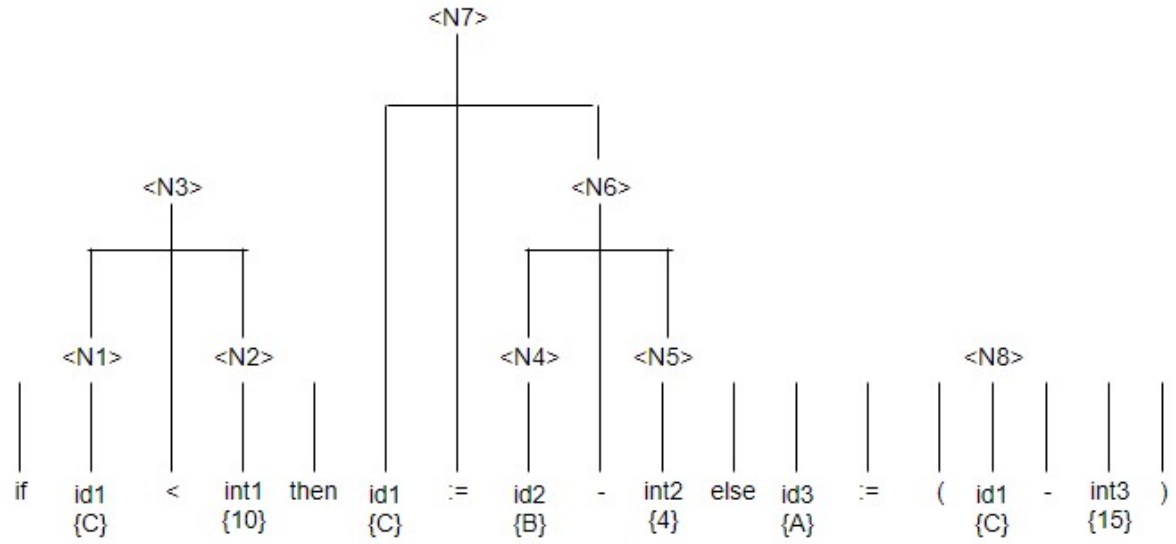
... if <N3> then id1 := <N6> else



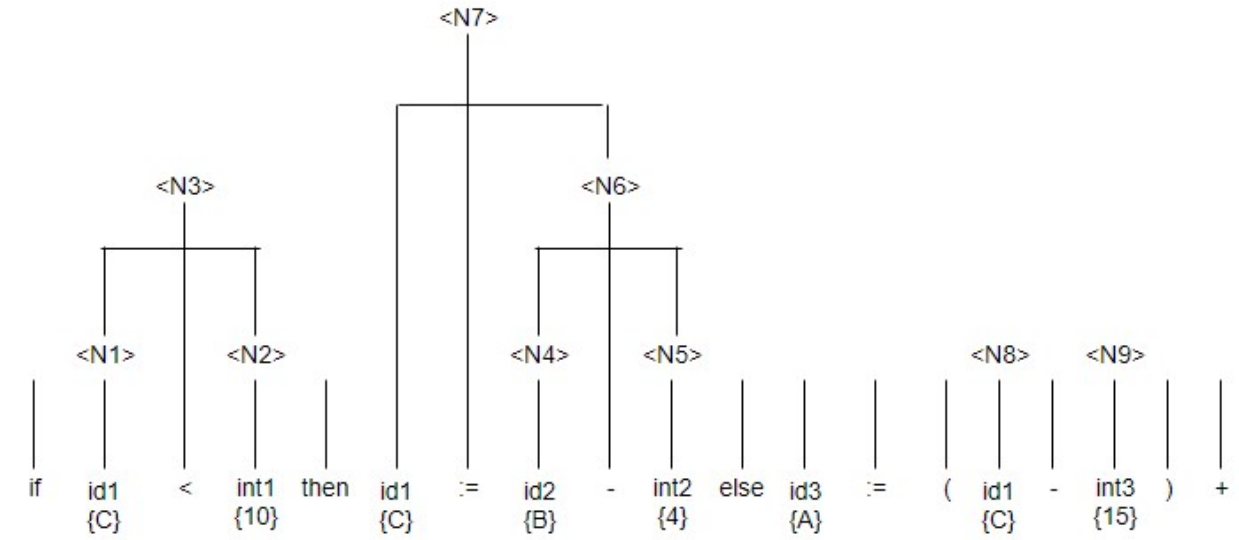
... if <N3> then <N7> else id3 := (id1 –



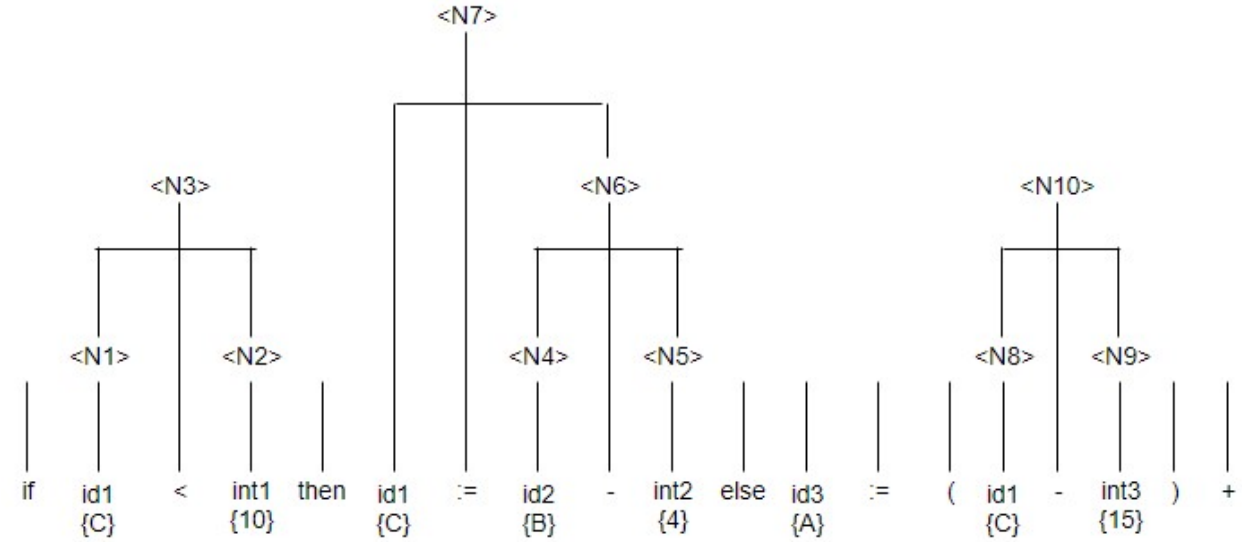
... if <N3> then <N7> else id3 := (<N8> - int3)



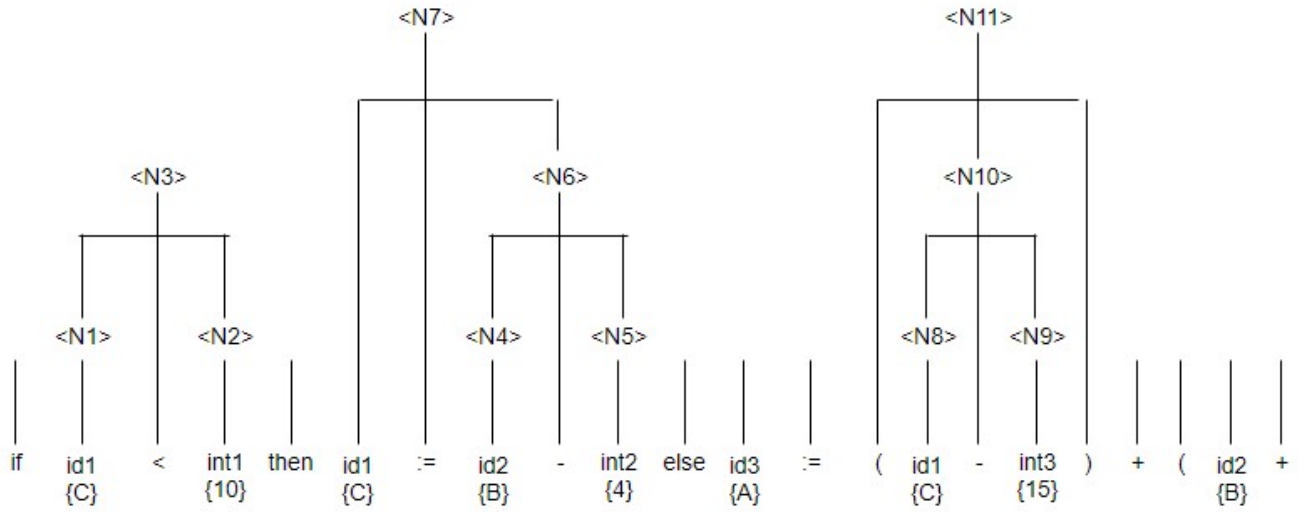
... if <N3> then <N7> else id3 := (<N8> - <N9>) +



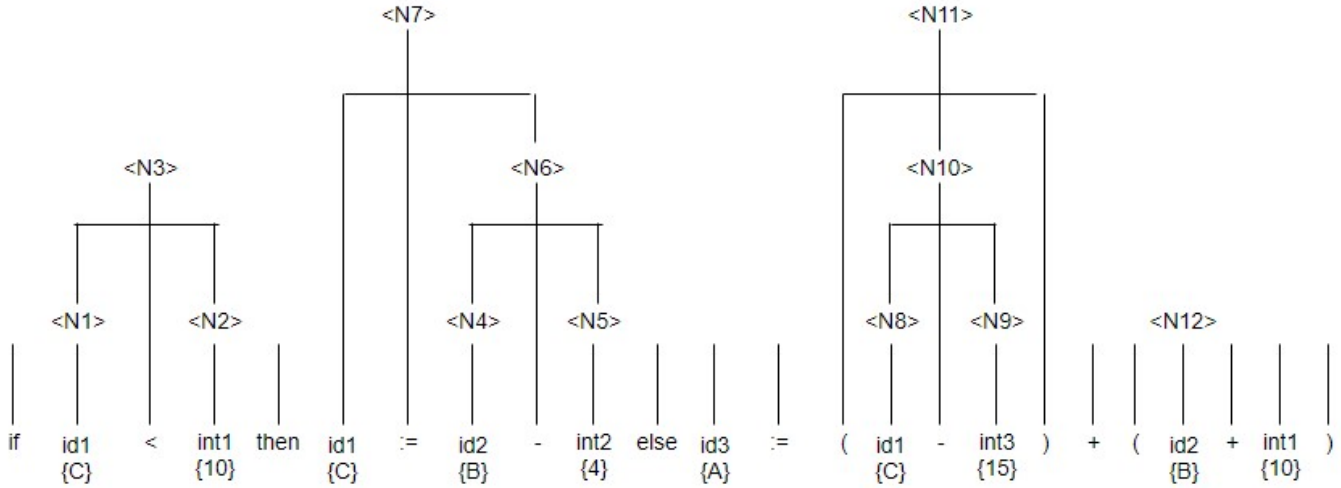
... if <N3> then <N7> else id3 := (<N10>) +



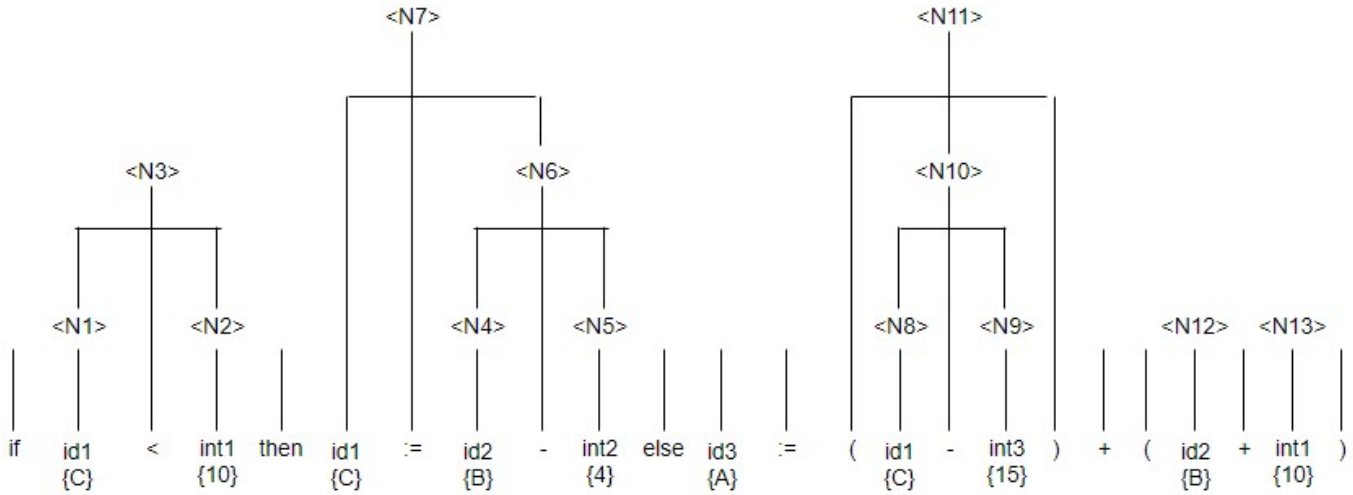
... if <N3> then <N7> else id3 := <N11> + (id2 +



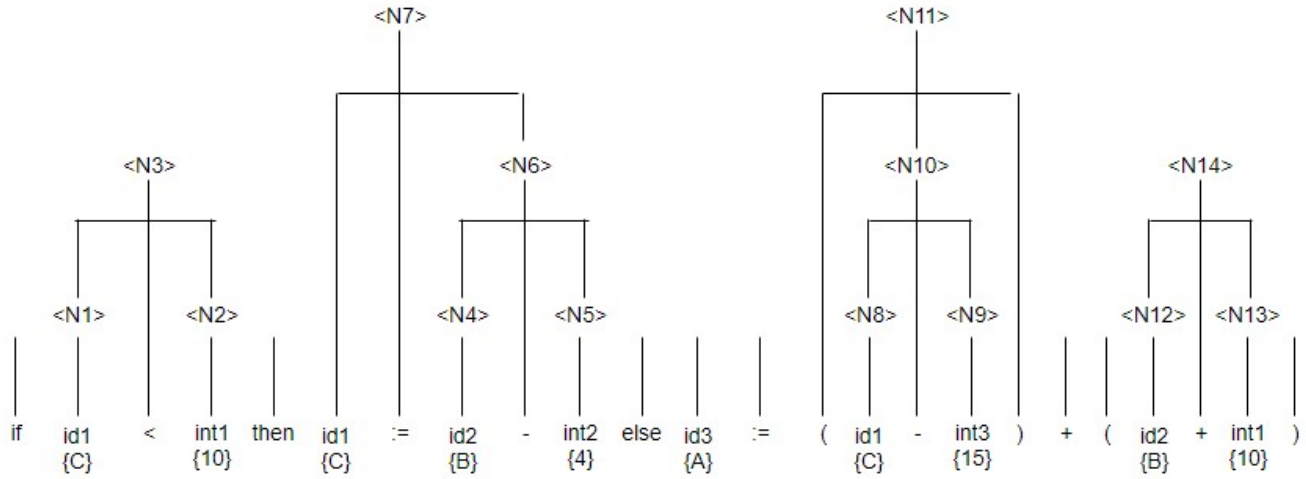
... if <N3> then <N7> else id3 := <N11> + (<N12> + int1)



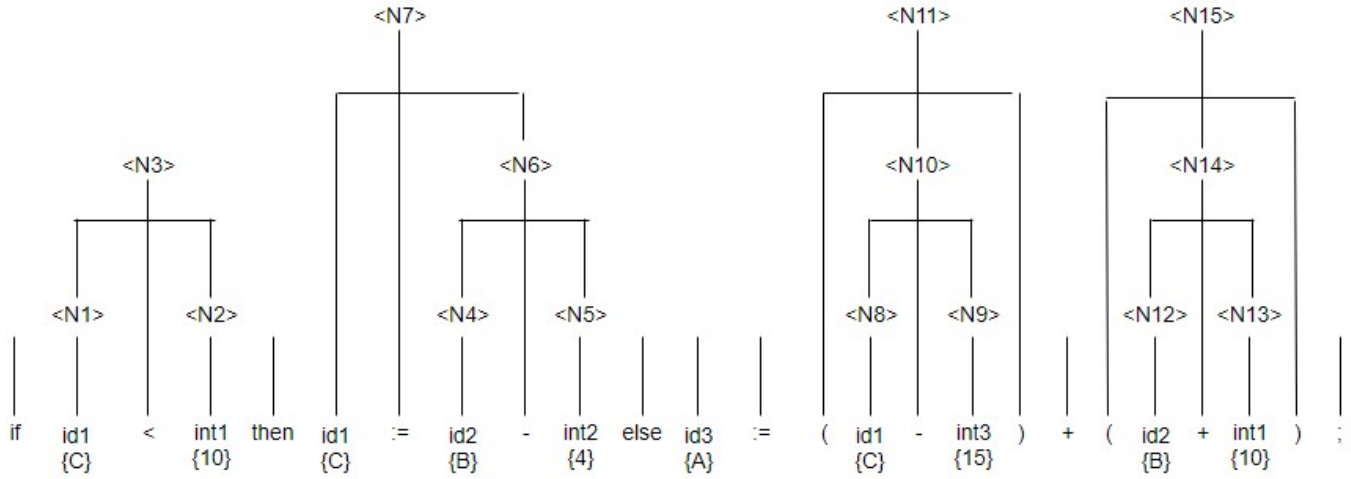
... if <N3> then <N7> else id3 := <N11> + (<N12> + <N13>)



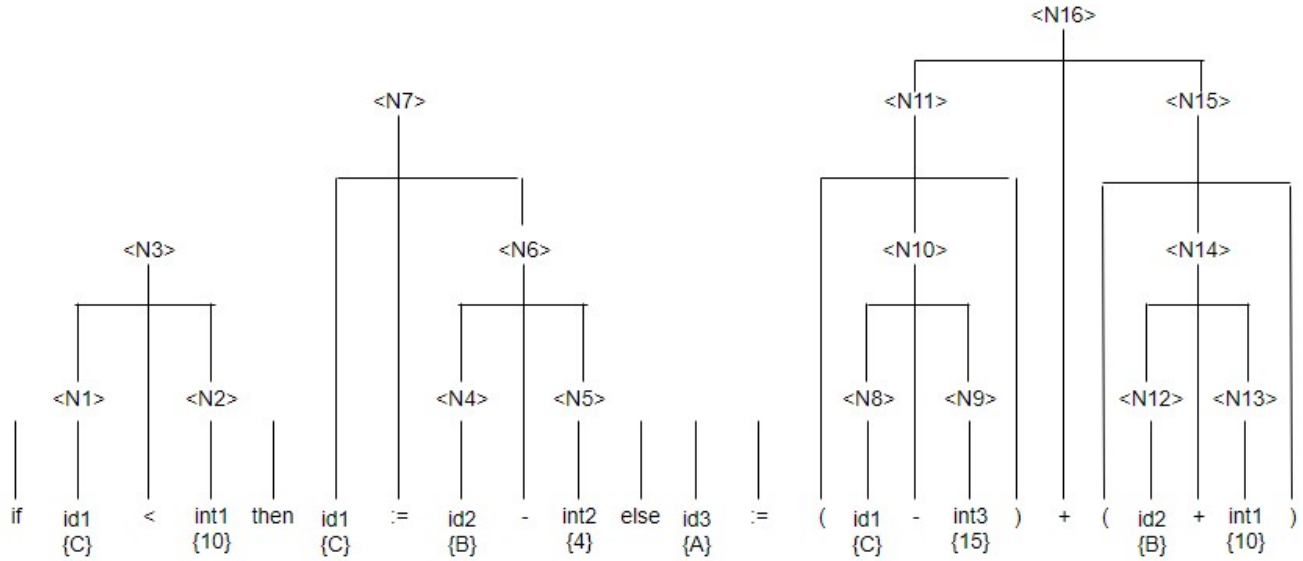
... if <N3> then <N7> else id3 := <N11> + (<N14>)



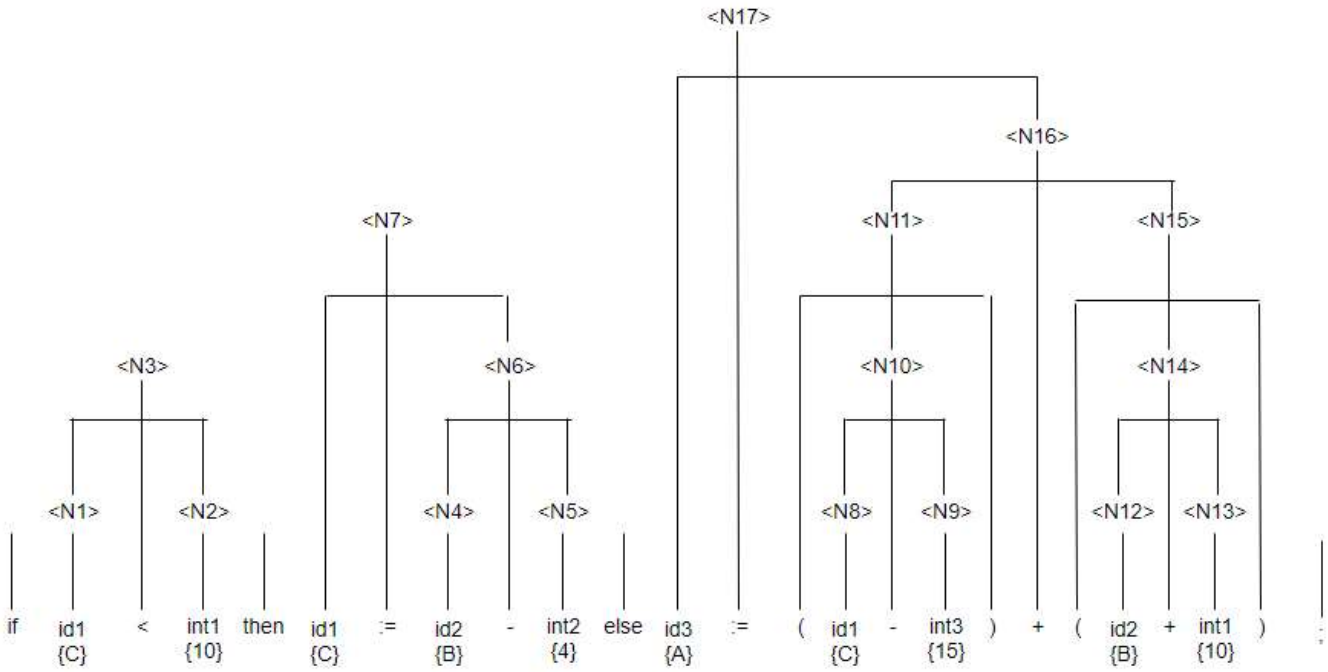
... if <N3> then <N7> else id3 := <N11> + <N15> ;



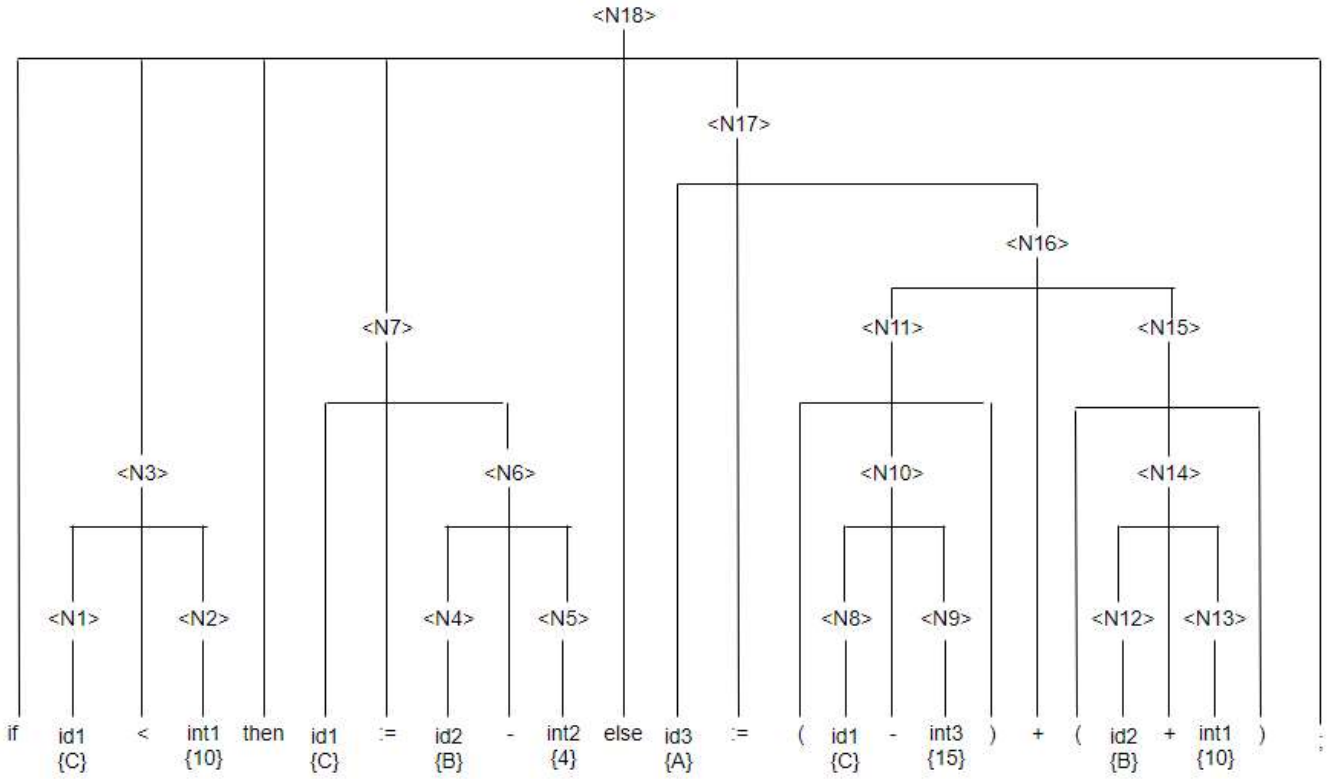
... if <N3> then <N7> else id3 := <N16> ;



... if <N3> then <N7> else <N17> ;



... <N18> ;



Оптимизация
A1 = (A2 + A4) * (A3 – A5)
A2 = (A2 + A4) / 17
A4 = A1 * A2 – A5
A5 = (A2 + A4) / (A3 – A5)

Исходные триады	Зависимости переменных A1 A2 A3 A4 A5	dep(i)	Полученные триады
(1) + A2 A4	0 0 0 0 0	1	(1) + A2 A4
(2) – A3 A5	0 0 0 0 0	1	(2) – A3 A5
(3) * (1) (2)	0 0 0 0 0	1	(3) * (1) (2)
(4) = A1 (3)	0 0 0 0 0	1	(4) = A1 (3)
(5) + A2 A4	4 0 0 0 0	1	(5) Same (1)
(6) / (5) 17	4 0 0 0 0	2	(6) / (5) 17
(7) = A2 (6)	4 0 0 0 0	3	(7) = A2 (6)
(8) * A1 A2	4 7 0 0 0	8	(8) * A1 A2
(9) – (8) A5	4 7 0 0 0	9	(9) – (8) A5
(10) = A4 (9)	4 7 0 0 0	10	(10) = A4 (9)
(11) + A2 A4	4 7 0 10 0	11	(11) + A2 A4
(12) – A3 A5	4 7 0 10 0	1	(12) Same (2)
(13) / (11) (12)	4 7 0 10 0	12	(13) / (11) (12)
(14) = A5 (13)	4 7 0 10 0	13	(14) = A5 (13)