$S ::= W;Z$

$Z ::= W;Z \mid \varepsilon$

$W ::= P \mid POW$

$P ::= R \mid (W)$ lewostronna faktoryzacja

$R ::= L \mid L.L$

$L ::= C \mid CL$

$C ::= 0|1|2|3|4|5|6|7|8|9$

$O ::= *|:|+|-|\wedge$

$FIRST(S) = \{0,1,2,3,4,5,6,7,8,9,(\}$

$FIRST(Z) = \{0,1,2,3,4,5,6,7,8,9,(,\varepsilon\}$

$FIRST(W) = \{0,1,2,3,4,5,6,7,8,9,(\}$

$FIRST(P) = \{0,1,2,3,4,5,6,7,8,9,(\}$

$FIRST(R) = \{0,1,2,3,4,5,6,7,8,9\}$

$FIRST(L) = \{0,1,2,3,4,5,6,7,8,9\}$

$FIRST(C) = \{0,1,2,3,4,5,6,7,8,9\}$

$FIRST(O) = \{*,:,+,-,\wedge\}$

II reguła niespełniona występuje ε

Reguła I:

S: $\emptyset$ - reguła spełniona

Z: $FIRST(W) \wedge \{\varepsilon\} = \{0,1,2,3,4,5,6,7,8,9,(\} \wedge \{\varepsilon\} = \emptyset$ - reguła spełniona

W: $FIRST(P) \wedge FIRST(P) = \{0,1,2,3,4,5,6,7,8,9,(\} \neq \emptyset$ - reguła niespełniona

P: $FIRST(R) \wedge \{(\} = \{0,1,2,3,4,5,6,7,8,9\} \wedge \{(\} = \emptyset$ - reguła spełniona

R: $FIRST(L) \wedge FIRST(L) \neq \emptyset$ - reguła niespełniona

L: $FIRST(C) \wedge FIRST(C) \neq \emptyset$ - reguła niespełniona

C: $\{0\} \wedge \{1\} \wedge \{2\} \wedge \{3\} \wedge \{4\} \wedge \{5\} \wedge \{6\} \wedge \{7\} \wedge \{8\} \wedge \{9\} = \emptyset$ - reguła spełniona

O: $\{*\} \wedge \{:\} \wedge \{+\} \wedge \{-\} \wedge \{\wedge\} = \emptyset$ - reguła spełniona

$S ::= W;Z$

$Z ::= W;Z \mid \varepsilon$

$W ::= PW'$

$W' ::= OW \mid \varepsilon$

$P ::= R \mid (W)$

$R ::= LR'$

$R' ::= .L \mid \varepsilon$

$L ::= CL'$

$L' ::= L \mid \varepsilon$

$C ::= 0|1|2|3|4|5|6|7|8|9$

$O ::= *|:|+|-|\wedge$

$FIRST(W) = \{0,1,2,3,4,5,6,7,8,9,(\}$ $FIRST(R) = \{0,1,2,3,4,5,6,7,8,9\}$

$FIRST(W') = \{*,:,+,-,\wedge,\varepsilon\}$ $FIRST(L) = \{0,1,2,3,4,5,6,7,8,9\}$

$FIRST(R') = \{.,\varepsilon\}$

$FIRST(L') = \{0,1,2,3,4,5,6,7,8,9,\varepsilon\}$

Reguła I:

$W' \doteq FIRST(O) \wedge \{\varepsilon\} = \emptyset$ - reguła spełniona

$R' \doteq \{.\} \wedge \{\varepsilon\} = \emptyset$ - reguła spełniona

$L' := \emptyset$ - reguła spełniona

$W := \emptyset$ - reguła spełniona

$R := \emptyset$ - reguła spełniona

$L := \emptyset$ - reguła spełniona

I reguła spełniona

FOLLOW(S) = ∅

FOLLOW(Z) = ∅

FOLLOW(W) = {i,)}

FOLLOW(W') = FOLLOW(W) = {i,)}

FOLLOW(P) = FIRST(W') ∪ FOLLOW(W) = {*, :, +, -, ^, i,)}

FOLLOW(R) = FOLLOW(P) = {*, :, +, -, ^, i,)}

FOLLOW(R') = FOLLOW(R) = {*, :, +, -, ^, i,)}

FOLLOW(L) = FIRST(R') ∪ FOLLOW(R') = {., *, :, +, -, ^, i,)}

FOLLOW(L') = FOLLOW(L) = {., *, :, +, -, ^, i,)}

FOLLOW(C) = FIRST(L') ∪ FOLLOW(L) = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ., *, :, +, -, ^, i,)}

FOLLOW(O) = FIRST(V) = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, C}

II regula

Z: FIRST(Z) ∩ FOLLOW(Z) = ∅ regula spełniona

W': FIRST(W') ∩ FOLLOW(W') = {*, :, +, -, ^, ε} ∩ {i,)} = ∅ - regula spełniona

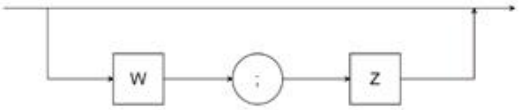
R': FIRST(R') ∩ FOLLOW(R') = {., ε} ∩ {*, :, +, -, ^, ε} = ∅ regula spełniona

L': FIRST(L') ∩ FOLLOW(L') = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ε} ∩ {., *, :, +, -, ^, i,)} = ∅ - regula spełniona

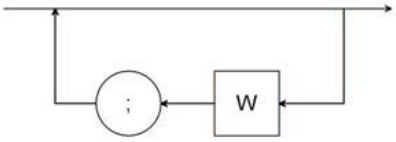
II regula spełniona

S

Z

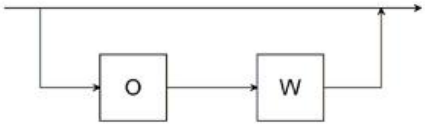


Z (po redukcji)

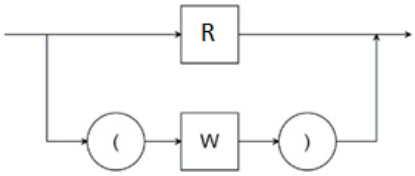


W

W’

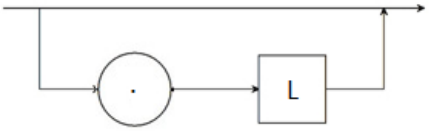


P



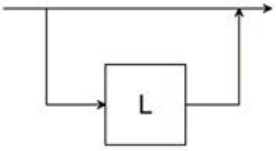
R

R’

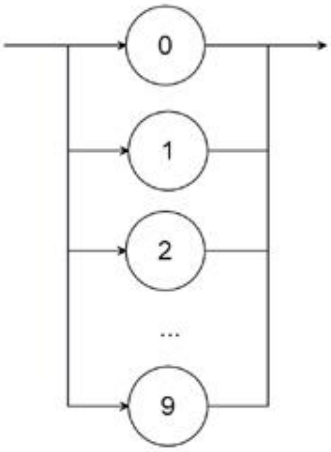


L

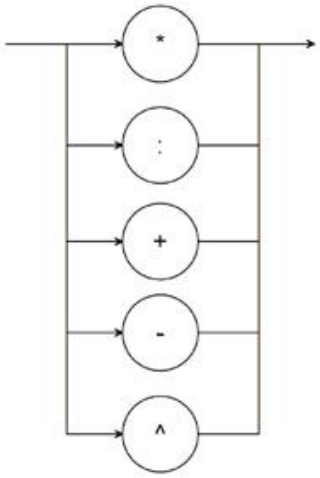
L’



C



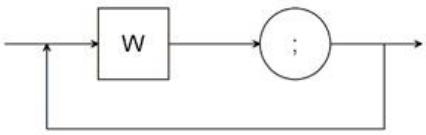
O



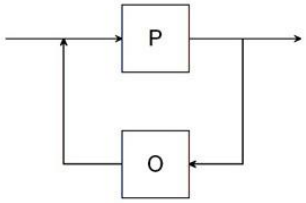
Odpada: Z, W’, L’, R’

Zostaje: S, W, P, L, R,C,O

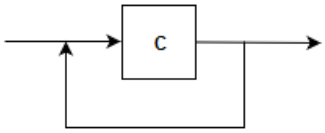
S (po redukcji Z)



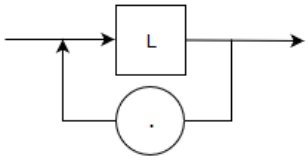
W (po redukcji W’)



L (po redukcji L’)



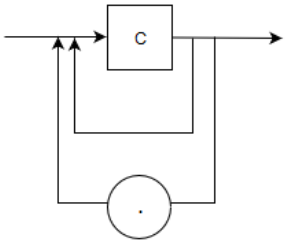
R (po redukcji R’)



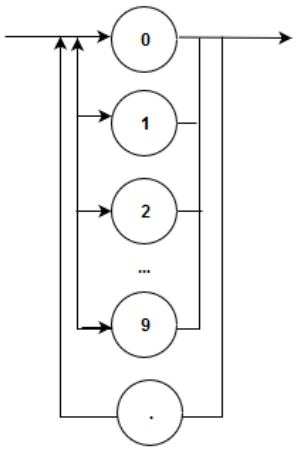
Odpada L, C, R, P, O

Zostaje S, W

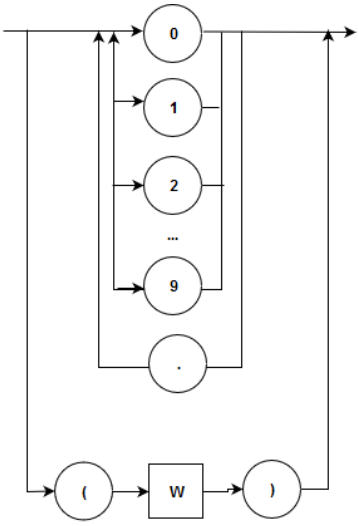
R (po redukcji L)



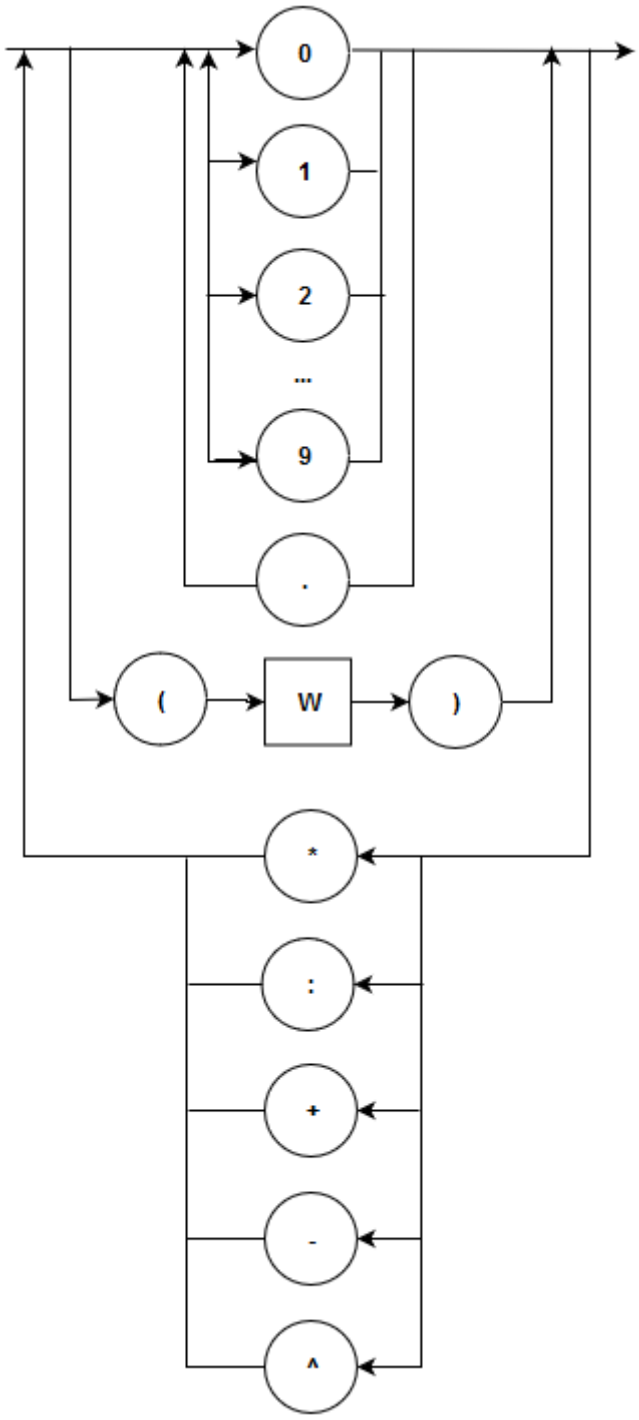
R (po redukcji C)



P (po redukcji R)



W (po redukcji P i O)



S (final) -
<u>poprawiony</u>