$S ::= W ; Z$

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

$\underline{W ::= P \mid POW}$ lewostronna

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

$\underline{R ::= L \mid L.L}$ ✓

$\underline{L ::= C \mid CL}$

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

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

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

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

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

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

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

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

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

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

FIRST(R') = {., ε}

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

$S ::= W ; Z$

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

$W ::= P W'$

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

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

$R ::= L R'$

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

$L ::= C L'$

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

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

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

Reguła I:

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

R': {.} $\wedge$ {ε} = $\emptyset$ - reguła spełniona

L': = $\emptyset$ - reguła spełniona

W: = $\emptyset$ - reguła spełniona

R: = $\emptyset$ - reguła spełniona

L: = $\emptyset$ - reguła spełniona

I reguła spełniona

$FOLLOW(S) = \emptyset$

$FOLLOW(Z) = \emptyset$

$FOLLOW(W) = \{i,)\}$

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

$FOLLOW(P) = FIRST(W') \cup FOLLOW(W) = \{*, :, +, -, \wedge, i,)\}$

$FOLLOW(R) = FOLLOW(P) = \{*, :, +, -, \wedge, i,)\}$

$FOLLOW(R') = FOLLOW(R) = \{*, :, +, -, \wedge, i,)\}$

$FOLLOW(L) = FIRST(R') \cup FOLLOW(R') = \{., *, :, +, -, \wedge, i,)\}$

$FOLLOW(L') = FOLLOW(L) = \{., *, :, +, -, \wedge, i,)\}$

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

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

II reguła

$Z: FIRST(Z) \cap FOLLOW(Z) = \emptyset$ reguła spełniona

$W': FIRST(W') \cap FOLLOW(W') = \{*, :, +, -, \wedge, \varepsilon\} \cap \{i,)\} = \emptyset$ - reguła spełniona

$R': FIRST(R') \cap FOLLOW(R') = \{., \varepsilon\} \cap \{*, :, +, -, \wedge, \varepsilon\} = \emptyset$ reguła spełniona

$L': FIRST(L') \cap FOLLOW(L') = \{0,1,2,3,4,5,6,7,8,9, \varepsilon\} \cap \{., +, :, +, -, \wedge, i,)\} = \emptyset$ - reguła spełniona

II reguła spełniona

S

Z
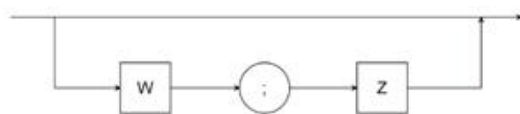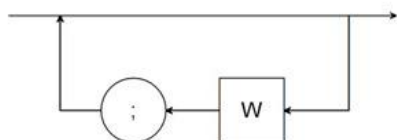
Z (po redukcji)

W

W'
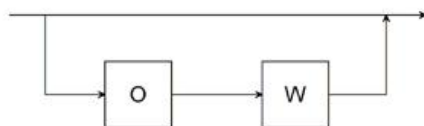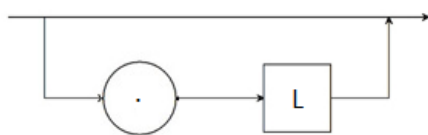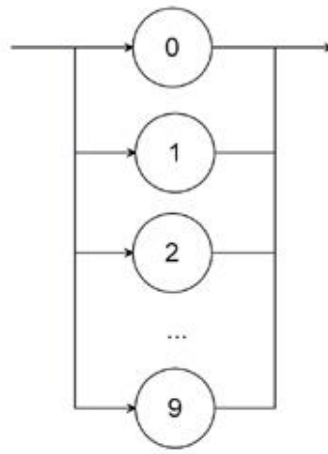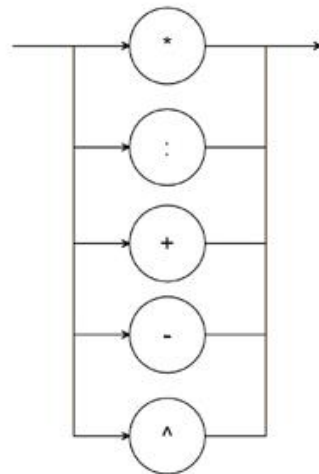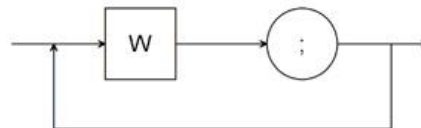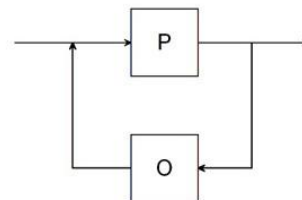
P
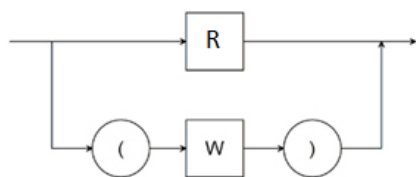
R

R'

L

L'
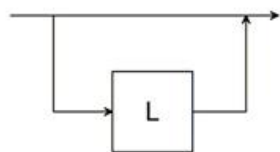
C

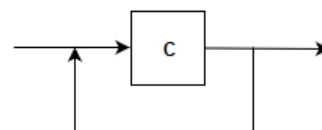O

Odpada: Z, W', L', R'
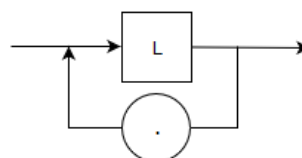
Zostaje: S, W, P, L, R,C,O

S (po redukcji Z)

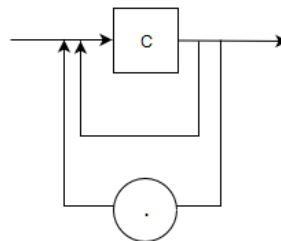W (po redukcji W')

L (po redukcji L')
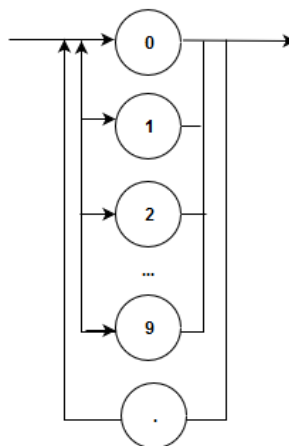

R (po redukcji R')
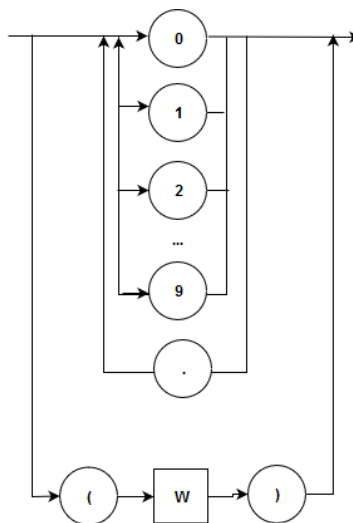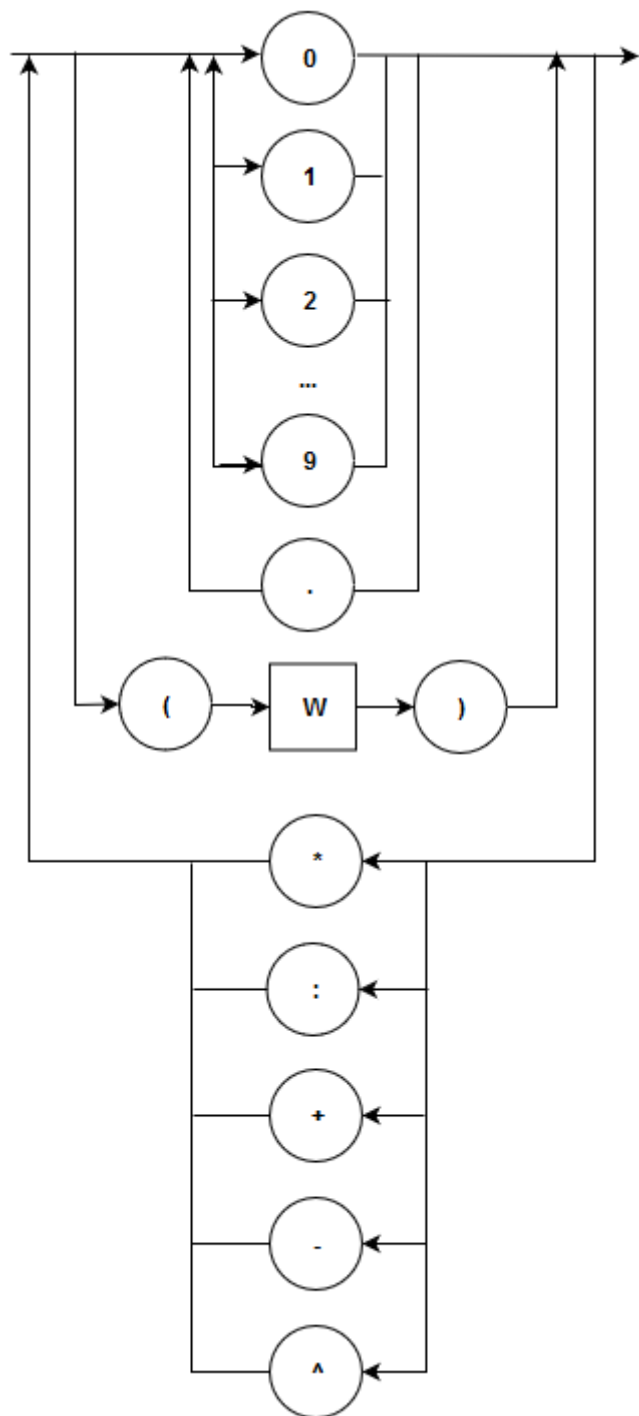
Odpada L, C, R, P, O

Zostaje S, W

R (po redukcji L)

R (po redukcji C)

P (po redukcji R)

W (po redukcji P i O)

S (final)