

Gramatyka w notacji EBNF:

[] - element opcjonalny

{ } - możliwe powtórzenie elementu

$A ::= B\{OB\}$

$B ::= (E) \mid E$

$E ::= [-]F\{PF\}$

$F ::= C[.D\{D\}]$

$C ::= 0 \mid G\{D\}$

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

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

$P ::= + \mid - \mid / \mid * \mid ^$

Wyprowadzenie wyrażenia regularnego:

$P \rightarrow (\backslash+|\backslash-|\backslash/|\backslash*|\backslash^)$

$G \rightarrow [1-9]$

$D \rightarrow d/$

$C \rightarrow (0|[1-9](\backslash d)^*)$

$F \rightarrow (0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?$

$E \rightarrow (\backslash-)?(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?((\backslash+|\backslash-|\backslash/|\backslash*|\backslash^)(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?)^*$

$B \rightarrow (\backslash((\backslash-)?(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?((\backslash+|\backslash-|\backslash/|\backslash*|\backslash^)(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?)^*\backslash)|(\backslash-)?(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?((\backslash+|\backslash-|\backslash/|\backslash*|\backslash^)(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?)^*)$

$A \rightarrow (\backslash((\backslash-)?(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?((\backslash+|\backslash-|\backslash/|\backslash*|\backslash^)(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?)^*\backslash)|(\backslash-)?(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?((\backslash+|\backslash-|\backslash/|\backslash*|\backslash^)(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?)^*)((\backslash+|\backslash-|\backslash/|\backslash*|\backslash^)(\backslash((\backslash-)?(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?((\backslash+|\backslash-|\backslash/|\backslash*|\backslash^)(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?)^*\backslash)|(\backslash-)?(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?((\backslash+|\backslash-|\backslash/|\backslash*|\backslash^)(0|[1-9](\backslash d)^*)(\backslash.(\backslash d)^+)?)^*))^*$