

1. Задача 2.

(a) Стартовый терминал E

$$E \rightarrow AE'$$

$$E' \rightarrow + A E' \mid \epsilon$$

$$A \rightarrow NA'$$

$$A' \rightarrow * N A' \mid \epsilon$$

$N \rightarrow n$, где n — является лексемой числа.

Тогда:

$$First(E) = \{n\}, Follow(E) = \{[\$]$$

$$First(E') = \{+\}, Follow(E') = \{[\$]$$

$$First(A) = \{n\}, Follow(A) = \{[+, \$]$$

$$First(A') = \{*\}, Follow(A') = \{+, \$]$$

$$First(N) = \{n\}, Follow(A') = \{+, *, \$]$$

(b) Стартовый терминал A

$$A \rightarrow [B]A \mid \epsilon$$

$$B \rightarrow (A)A \mid \epsilon$$

$$First(A) = \{[, \epsilon\}, Follow(A) = \{[,), \$, \}$$

$$First(B) = \{(\epsilon\}, Follow(B) = \{[]\}$$