What are valid symbols?

- **What is needed:**
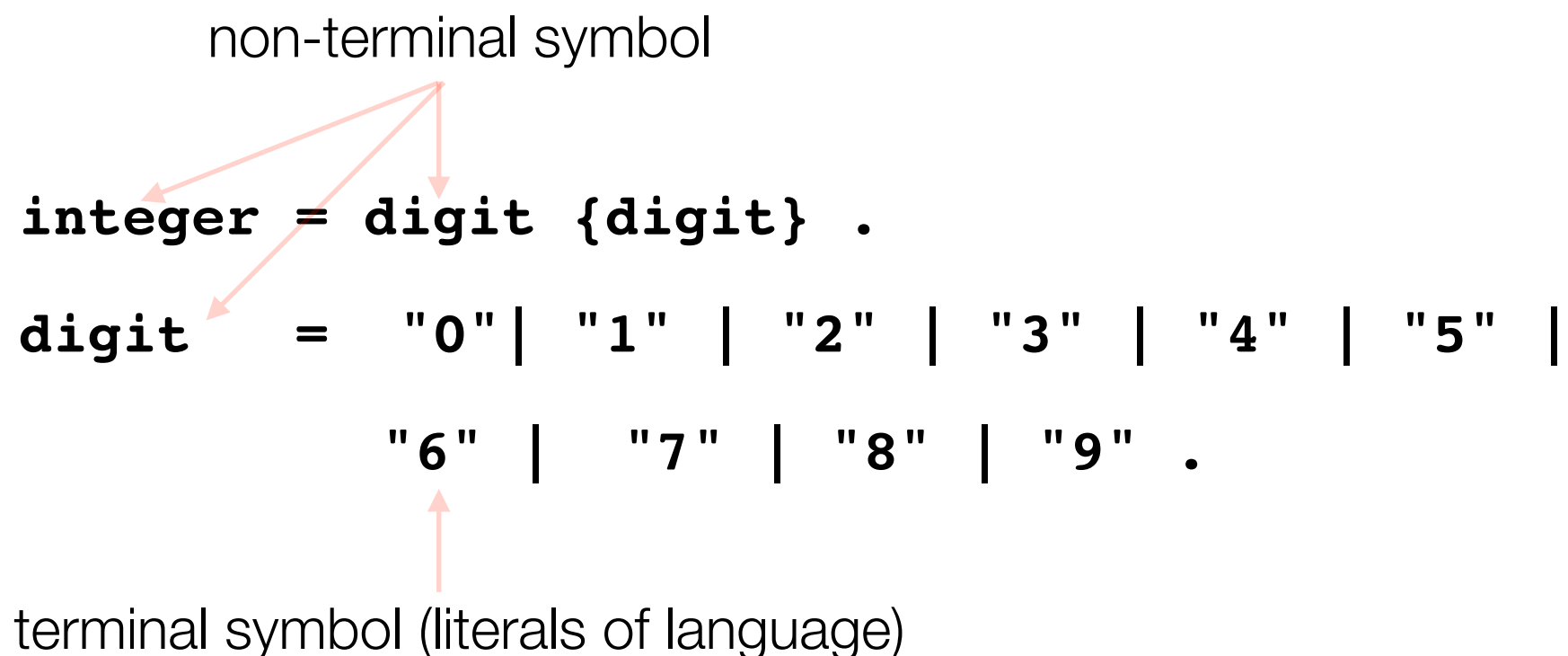 A specification of valid symbols -> <u>regular expression</u> and a formalism to write such a specification.

- **In selfie…**
  the chosen formalism is <u>EBNF</u> (see in the <u>grammar.md</u> file).

Regular Expression

- Regular expression is a formalism that defines a <u>regular language</u> (= a set of symbols defined by regular expression)

- The production rules consists of <u>terminal symbols, non-terminal symbols</u> and operators (repetition{}, concatination ⌴, xor| , …).

- A regular expression can be reduced to **a single rule** by replacing every non-terminal symbol with its right-hand side until no non-terminal symbols are left.

non-terminal symbol

```
integer = digit {digit} .
digit   =  "0"| "1" | "2" | "3" | "4" | "5" |
           "6" |  "7" | "8" | "9" .
```

terminal symbol (literals of language)

What are valid symbols?

- **What is needed:**
  A specification of valid symbols -> <u>regular expression</u> and a formalism to write such a specification.

- **In selfie…**
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