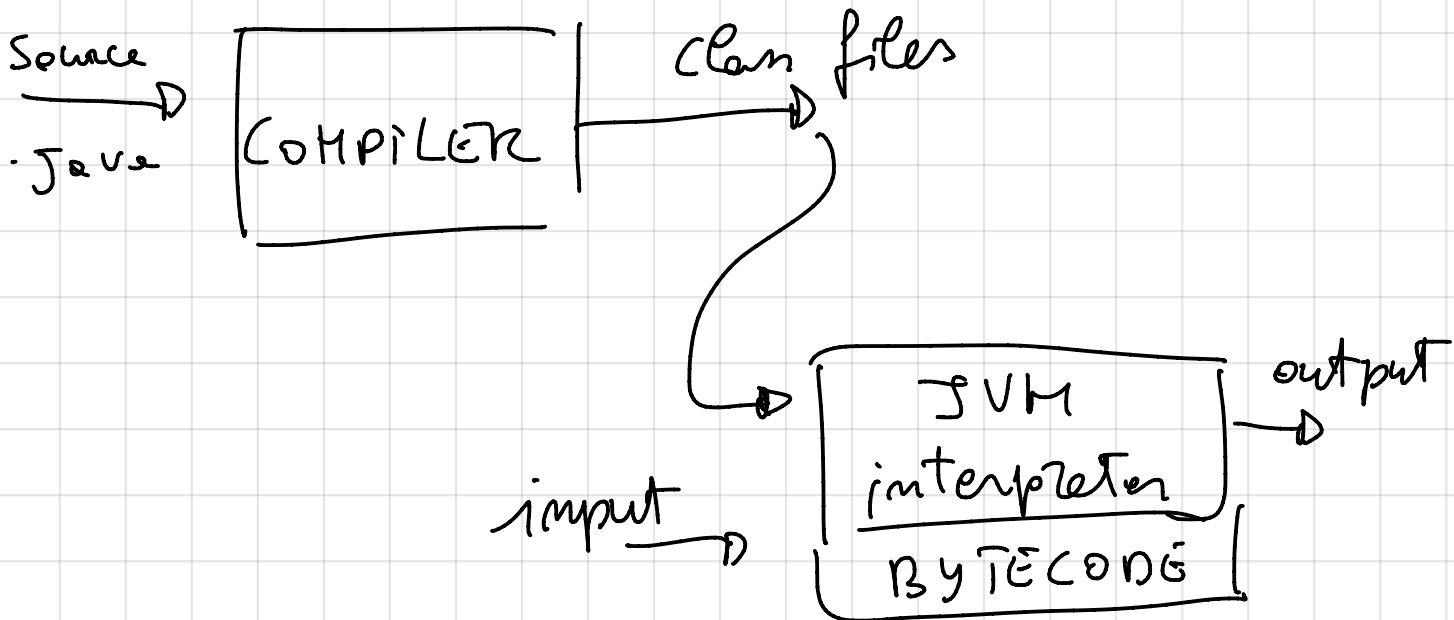


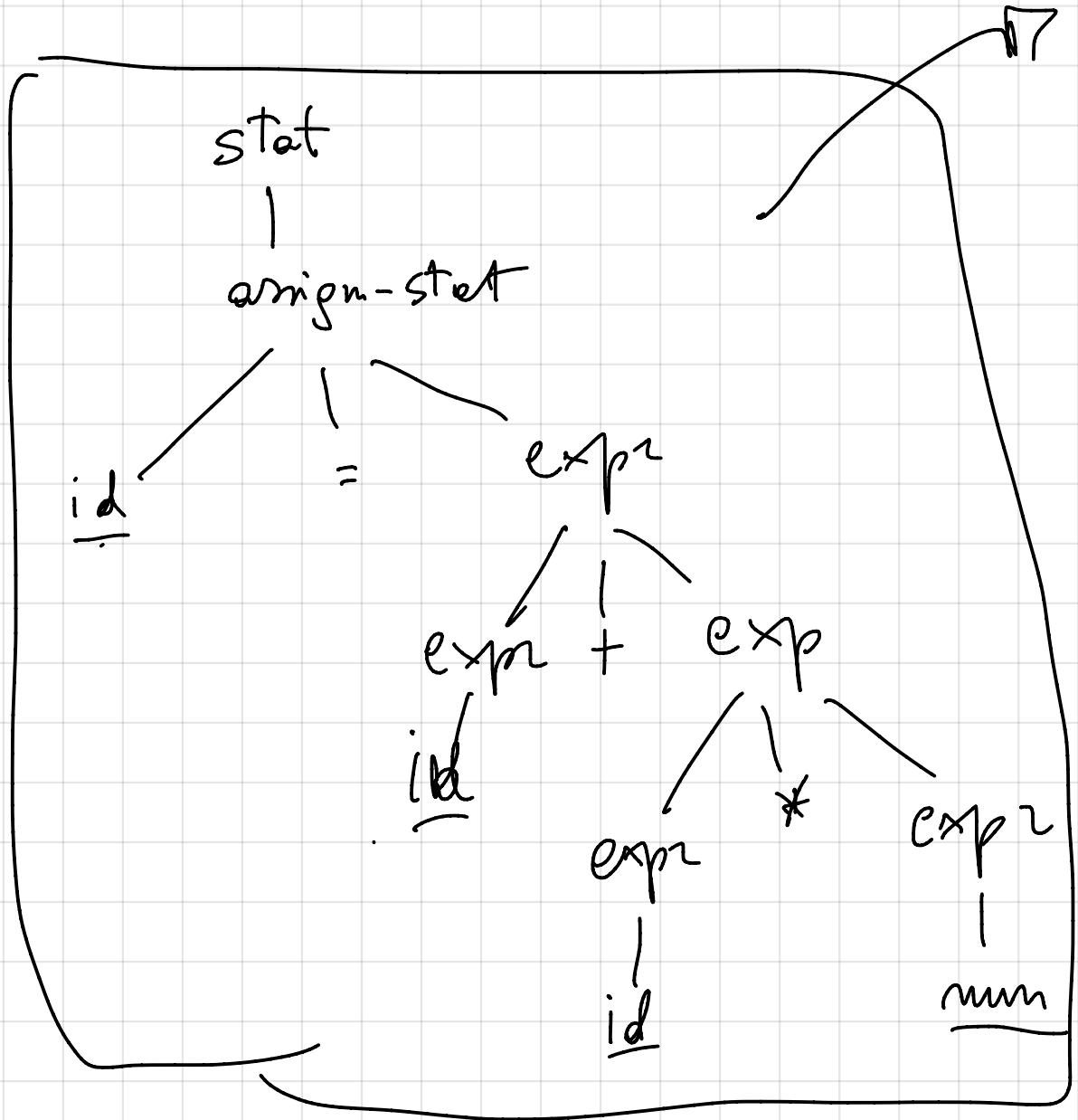
PYTHON, BASH, LISP

JAVASCRIPT PHP ...

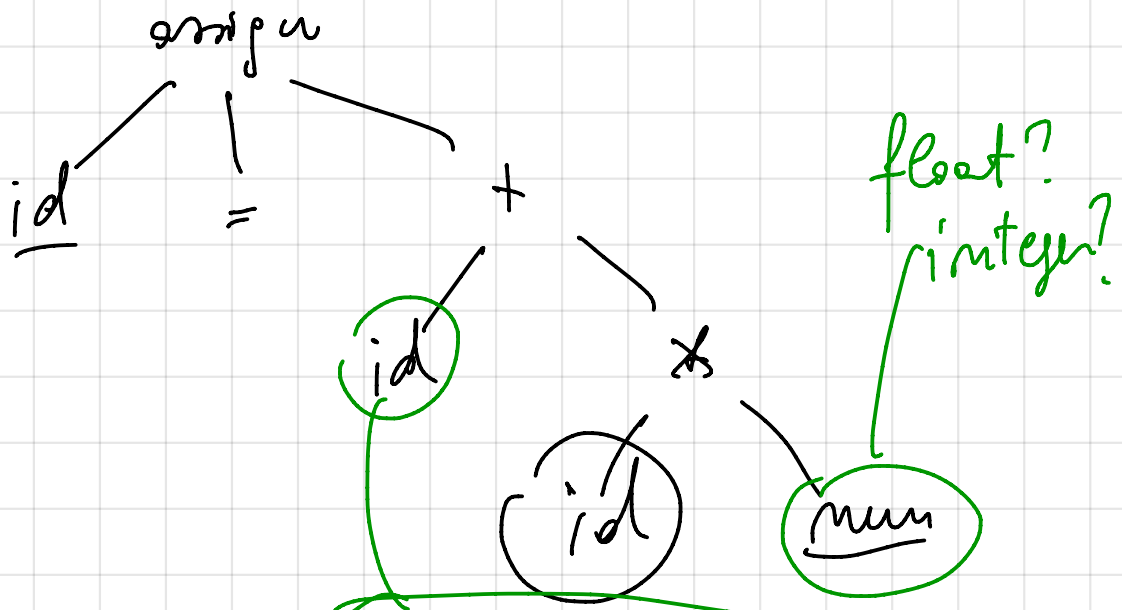
JAVA?



position = init + rate * 60



abstract syntax tree



Semantic
analysis

?
- type is numerical
or can be
converted to
numerical

if (i == j) ln lt lt z = 0; ln lt else
ln lt lt z = 1;

<keyword, "if">, <bracket, "(">
<id, 1>, <relop, "==">, <id, 2>
<bracket, ")">, <id, 3>, <assign, "$=$">
<num, 0>, <semicolon, ";">, <keyword, "else">
<id, 3>, <assign, "$=$">, <num, 1>,
<semicolon, ";">