

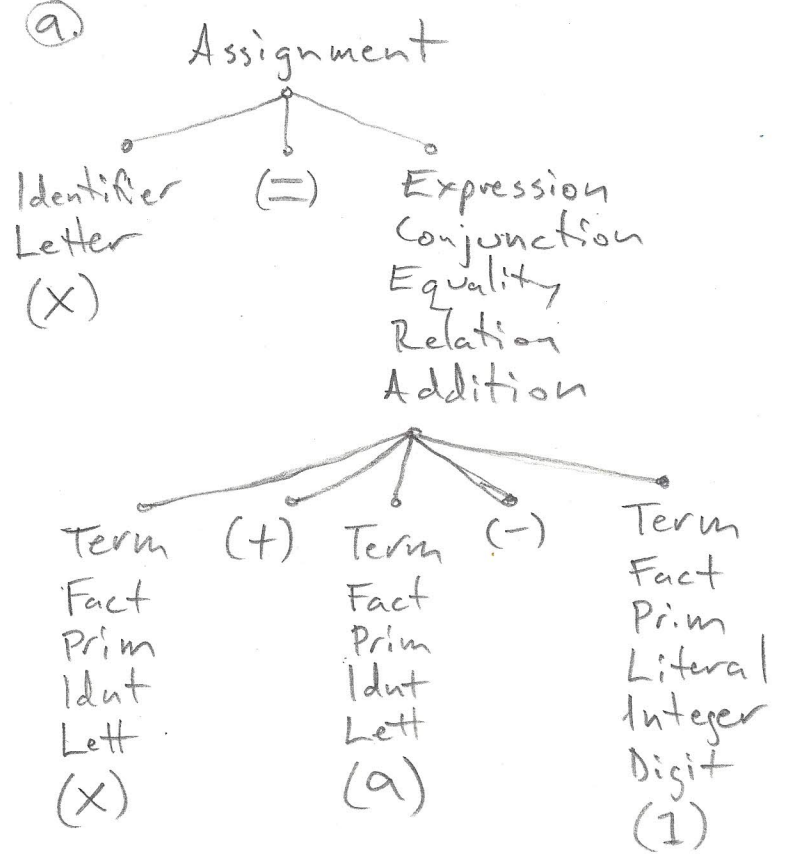
2.1) 4520 let I stand for Int
 and D stand for Dig

I D
 I D D
 I D D D
 D D D D
 4 D D D
 4 5 D D
 4 5 2 D
 4 5 2 0

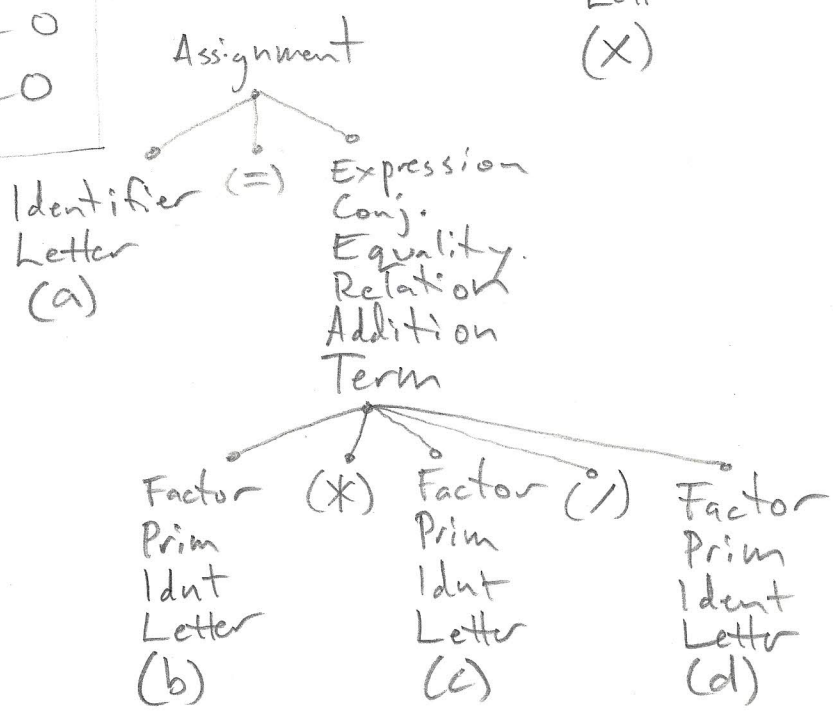
total # of steps = # of digits * 2

2.2) 4520
 I D
 I 0
 I D 0
 I 2 0
 I D 2 0
 I 5 2 0
 D 5 2 0
 4 5 2 0

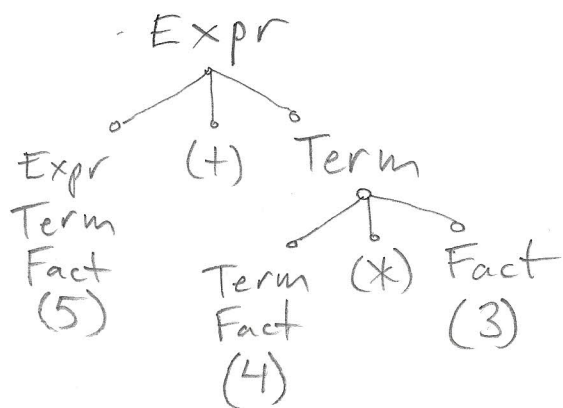
2.5) $x = x + a - 1$ (a)



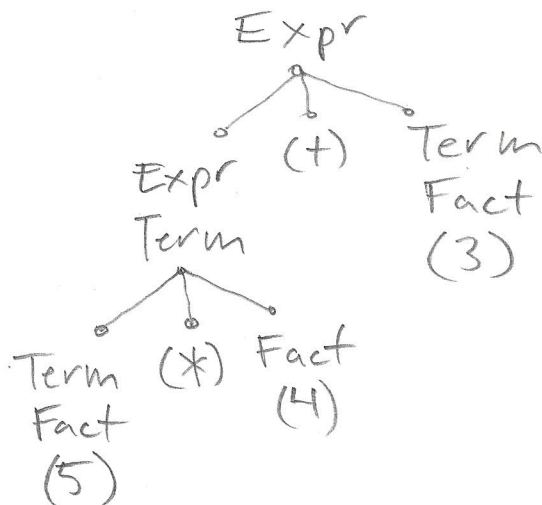
(b) $a = b * c / d$



2.8) a.) $5 + 4 * 3$



b.) $5 * 4 + 3$



2.13)

if Then Statement \rightarrow if (Expr) Statement

if Then Else Statement \rightarrow if (Expr) Statement No Short If else Statement

2.15)

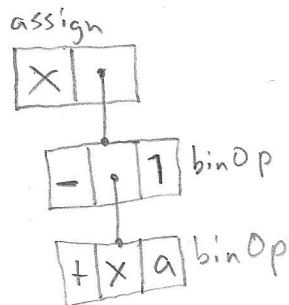
$A \rightarrow \{x\} : A \rightarrow e \mid A x$

$A \rightarrow (a \mid b) : A \rightarrow a \mid b$

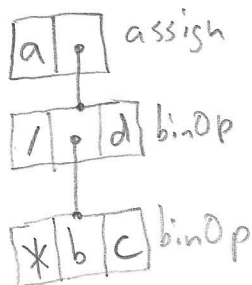
$A \rightarrow [x] : A \rightarrow e \mid x$

2.20)

a.) $x = x + a - 1$



b.) $a = b * c / d$



c.) $i = i + j * k - 3$

