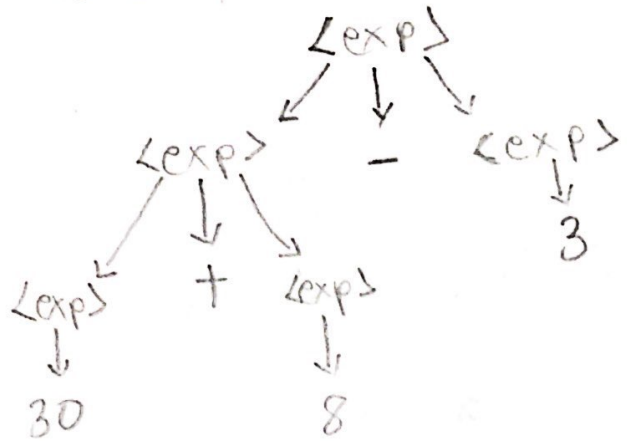
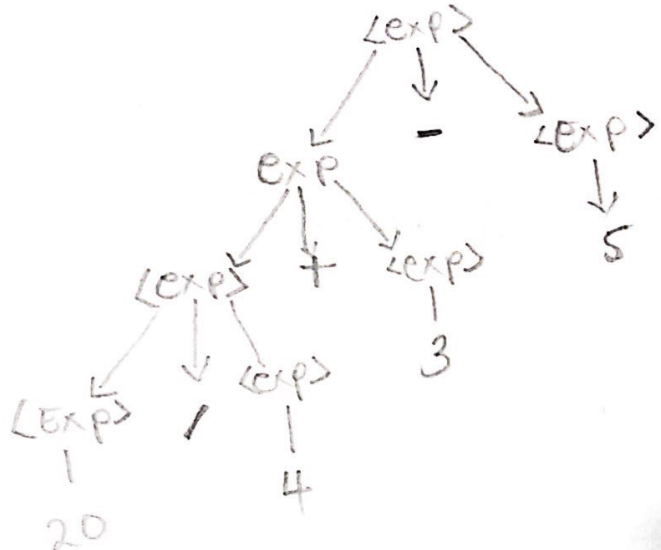
1(a) 30 + 8 - 3



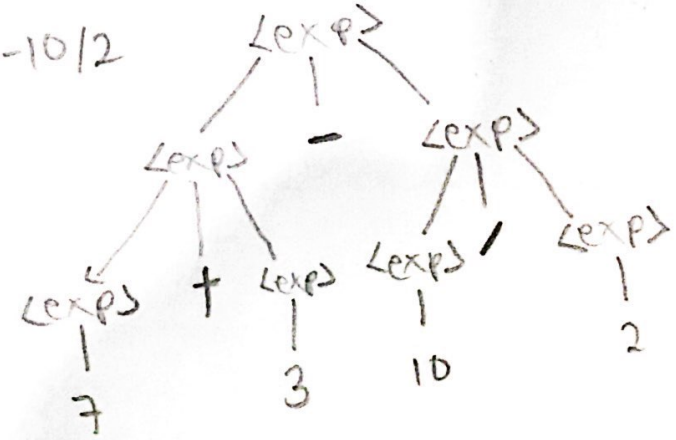
resposta = 35

1b 20/4 + 3 - 5



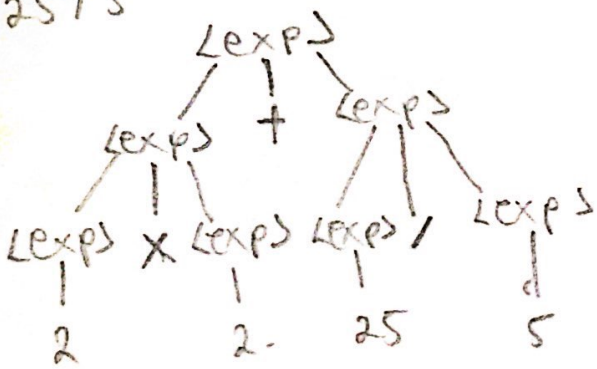
resposta = 3.

1c) 7+3-10/2



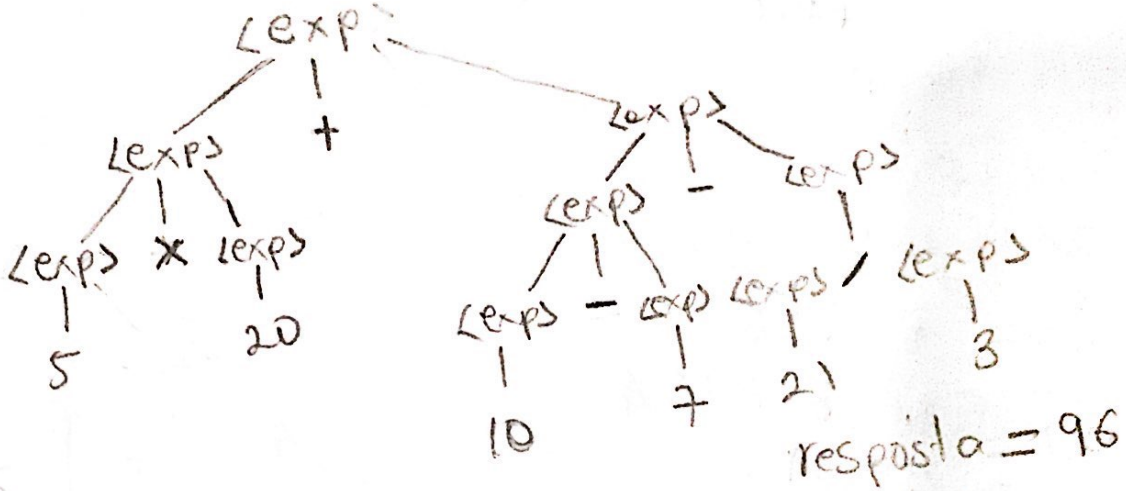
resposta = 5

1d. 2x2 +25/5



resposta = 9

1e) 5×20 + 10 - 7 - 21/3



resposta = 96

2) $G = (N, \Sigma, P, S)$

N is nonterminal
Σ is terminals
P is production rules
S is start or goal symbol

(a) 30 + 8 - 3

P | $E = E+E \mid E-E \mid ID$

$ID = [0-9]^+$

$N = \{E, ID\}$

$\Sigma = [0-9]^+ \cup \{+, -\}$

$S = E$

b) 20/4 + 3 - 5

P | $E = E/E \mid E+E \mid E-E \mid ID$

$ID = [0-9]^+$

$N = \{E, ID\}$

$\Sigma = [0-9]^+ \cup \{/, +, -\}$

$S = E$

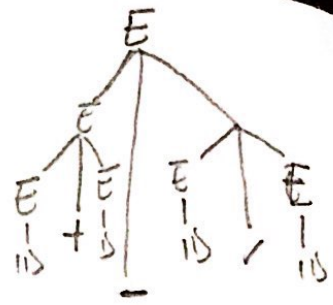
c) 7+3-10/2.

P | E = E+E | E/E | E-E | E | ID

ID = [0-9]+

N = [E, ID]

Σ = {[0-9]+ ∪ {/, +, -}



d) 2x2 + 25/5

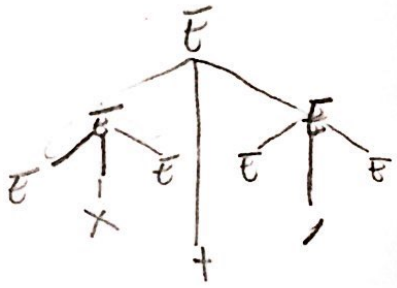
S = E

P | E = E x E | E+E | E/E | E | ID

ID = [0-9]+

N = [E, ID]

Σ = {[0-9]+ ∪ {/, x, +}



e) 5x20 +10 - 7 -21/3

P | E → E x E | E+E | E/E | E-E | E-E | E | ID

ID = [0-9]+

N = [E, ID]

Σ = [0-9]+ ∪ {/, x, +, -}

S = E