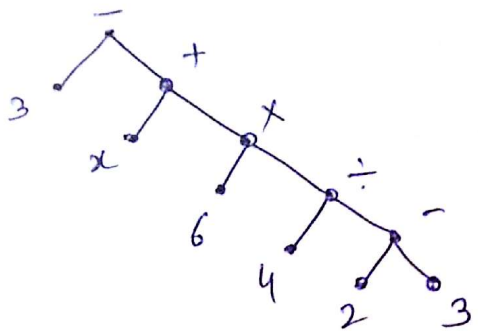
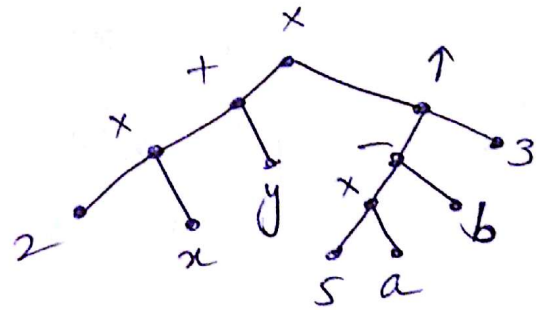
① Construct Tree for algebraic Expressions.

$3-(x+(6\times(4\div(2-3))))$



$(2x+y)\times(5a-b)^3$



② Evaluate the Prefix | Polish Notation

Expression for

Root left Right

+ − * 2 3 5 / ↑ 2 3 4

+ − 6 5 / ↑ 2 3 4

+ 1 / ↑ 2 3 4 [$\uparrow 2\ 3 = 2^3$]

+ 1 / 8 4

+ 1 2 = 3

③ Find Post fix | Reverse polish for:

7 2 3 * − 4 ↑ 9 3 / +

7 6 − 4 ↑ 9 3 / +

1 4 ↑ 9 3 / +

1 9 3 / +

1 3 +

4

Ex → Post fix:

x 2 -3 + 23 y + - w 3 - x ÷

when x is 7 & y is 2 & w is 1

Sol. 7 2 -3 + 232 + -13 - x ÷

= 53 + 232 + - 13 - x ÷

= 8232 + -13 - x ÷

= 825 -13 - x ÷

= 8