

## Lesson 3. Trees.

### EXERCISES:

1. What is the prefix and the postfix notation of the expression  $(3x-4)^2$  ?
2. (a) What is the arithmetic expression of the postfix expression  
$$x y + 2 \uparrow x y - 2 \uparrow - x y * / ?$$
  
(b) What is the prefix expression of that postfix expression?
3. (a) What is the arithmetic expression of the prefix expression  
$$\uparrow + * 2 a 3 - b 5 ?$$
  
(b) What is the postfix expression of that prefix expression?
4. What is the value of the prefix expression  $+ - * 2 3 5 / \uparrow 2 3 4$ ?
5. What is the value of the postfix expression  $7 2 3 * - 4 \uparrow 9 3 / +$ ?
6. A tree has one vertex of degree 4, 2 of degree 3, 3 of degree 2 and the rest of degree 1. How many vertices are there in the graph?