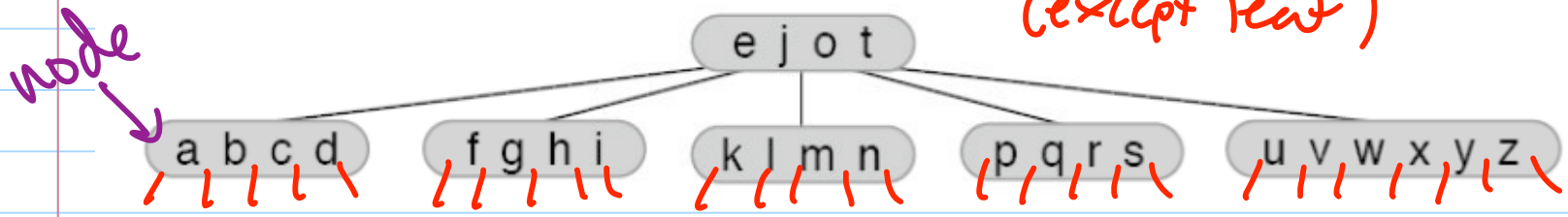
B-tree properties

in node { # children is always #tags + 1 (except leaf)

$t = 4$?



- t is a parameter (give to constructor), make as big as you can so a full node (2t children) fits on a disk page
- completely balanced, every path from root to a leaf has exactly the same # of nodes
- every node (except root) has $\geq t-1$ tags/elements
- every node has $\leq 2t-1$ tags ($\leq 2t$ children)

B-Trees, Part II

Note Title 10/30/2007

Review of Properties

Extension of INORDER

Let t be the order of the B-tree (parameter given to constructor)

BALANCED - all leaf nodes are at same height. So an internal node with x elements has $x+1$ non-empty children

NODEUTILIZATION - With the exception of root all nodes have $\geq t$ children ($\&$ so $\geq t-1$ elements). The root has ≥ 2 children. All nodes have $\leq 2t$ children ($\&$ so $\leq 2t-1$ elements)