

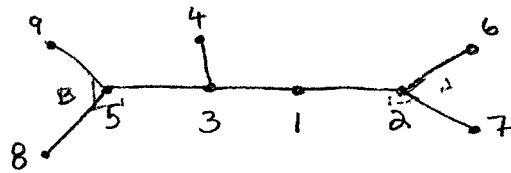
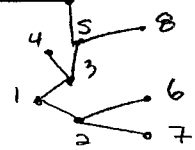
Attendance Quiz for Lecture 10

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1. (a) Draw the labeled tree on 9 vertices whose edges are

$\{\{1, 2\}, \{1, 3\}, \{2, 6\}, \{2, 7\}, \{3, 4\}, \{3, 5\}, \{5, 8\}, \{5, 9\}\}$



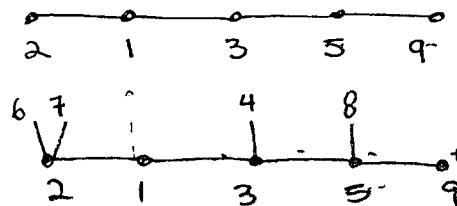
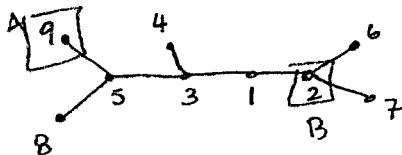
Leaves = 9, 8, 4, 6, 7

$b_1 = 4, a_1 = 3$	(3)
$b_2 = 6, a_2 = 2$	(3, 2)
$b_3 = 7, a_3 = 2$	(3, 2, 2)
$b_4 = 2, a_4 = 1$	(3, 2, 2, 1)
$b_5 = 1, a_5 = 3$	(3, 2, 2, 1, 3)
$b_6 = 5, a_6 = 5$	(3, 2, 2, 1, 3, 5)
$b_7 = 8, a_7 = 5$	(3, 2, 2, 1, 3, 5, 8)

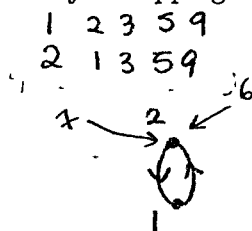
(b) Find its Prüfer code

(3, 2, 2, 1, 3, 5, 5)

(c) Make it doubly rooted at vertices 2 and 9 (draw it by circling these roots and draw the skeleton from the first root to to the second root).



(d) Apply the Joyal mapping to this doubly-rooted tree, to find the corresponding endofunction.



Joyal mapping.