

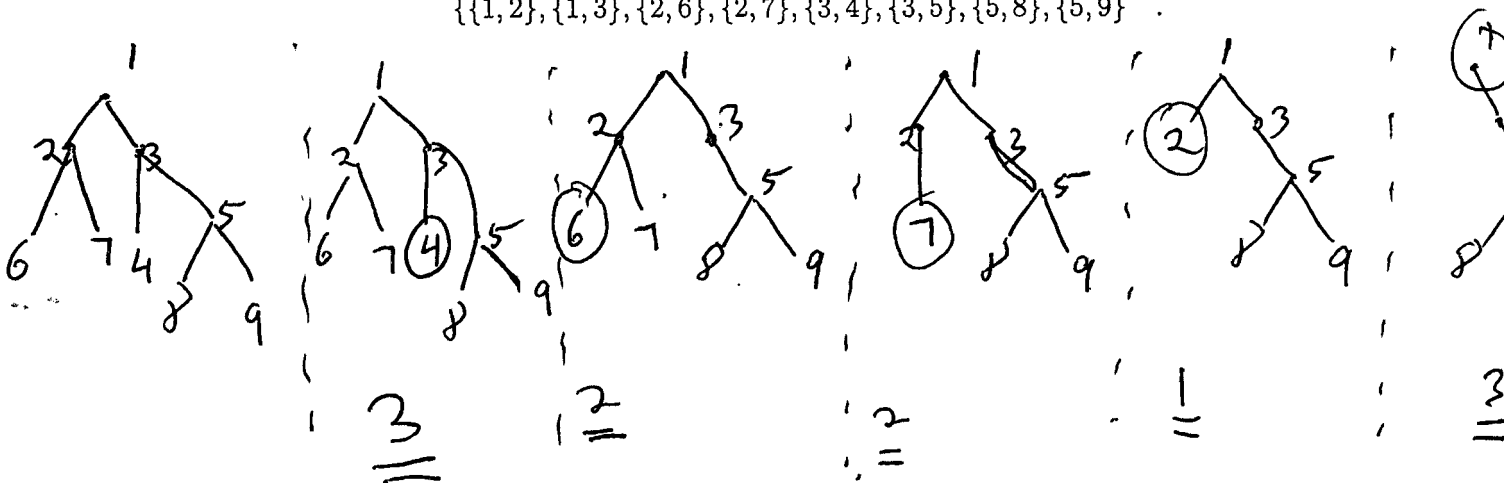
Attendance Quiz for Lecture 10

NAME: (print!) DR. Z

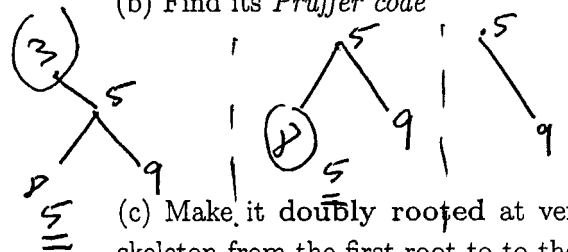
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1. (a) Draw the labeled tree on 9 vertices whose edges are

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

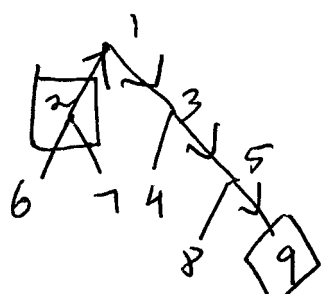


(b) Find its Prüfer code



ANS = 3221355

(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).



skeleton

21359

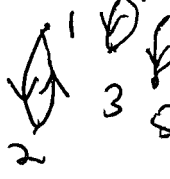
PERMUTATION

1 2 3 5 9
2 1 3 5 9

CYCLE STRUCTURE

$(12)(3)(5)(9)$
 $(2)(1)(3)(5)(9)$

PICTURE



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



ANS

1 2 3 4 5 6 7 8 9
2 1 3 3 5 2 2 5 9

ABBREVIATED ANS

213352259