

Isaac Abeller labeller@uok.uitk.edu.

CS 202 Homework 8.

Problem: 1

grun M D T A R U P Q N

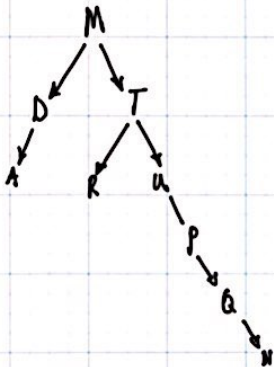
Sketch a Binary Tree. This is based on BST's data.

## Binary Tree

min nodes = 9

$$\text{num-leaves} = 5$$

height of tree = 4



## Problem 2

Let the tree node

Keys from Problem

- 1 using preorder, inorder, and postorder traversals.

preorder :  $M \rightarrow D \rightarrow A \rightarrow T \rightarrow R \rightarrow U \rightarrow P \rightarrow Q \rightarrow N$   
                   ↑  
                 root

inorder:  $A \rightarrow D \rightarrow M \rightarrow P \rightarrow Q \rightarrow R \rightarrow T \rightarrow U \rightarrow N$ .

postorder:  $A \rightarrow D \rightarrow N \rightarrow Q \rightarrow P \rightarrow R \rightarrow U \rightarrow t \rightarrow m$ .