

# Week 8 Recitation Exercise

CS 261 – 10 points

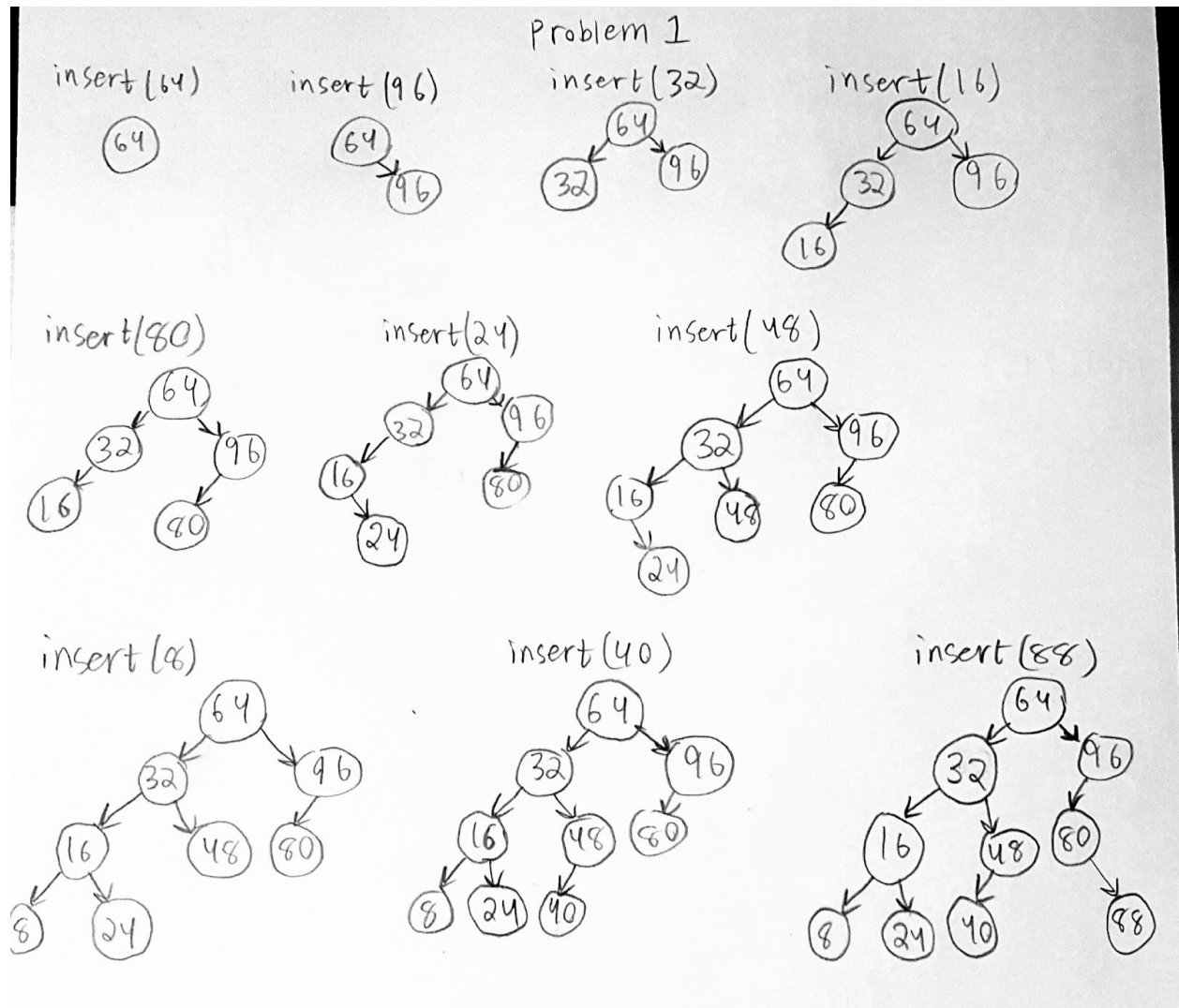
In this exercise, you'll get practice with binary search trees and their operations. Follow the instructions below, and when you're finished, make sure to submit your completed exercise on Canvas. **Note that, unlike in previous recitations, this exercise will be done individually instead of in groups, so make sure to submit your own copy of the completed exercise on Canvas.** Remember that this exercise will be graded based on effort, not correctness, so don't worry if you don't get all the right answers. Do make sure you *try* to get the right answers though.

## BST problems

For each of the following problems, start with an empty BST and draw what the resulting tree looks like after performing each specified operation. In other words, if a given problem lists 8 BST operations, you'll draw 8 separate trees for that problem, each of which depicts what the BST looks like after a new operation is executed.

You can use whatever mechanism is easiest for you to draw trees. For example, you can simply use pencil and paper and then take photos or scan your paper to submit your recitation exercise.

## Problem #1



## Problem #2

### Problem 2

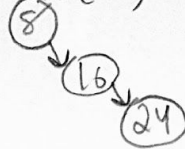
insert (8)



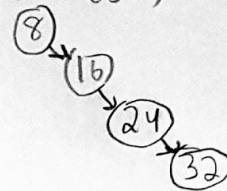
insert (16)



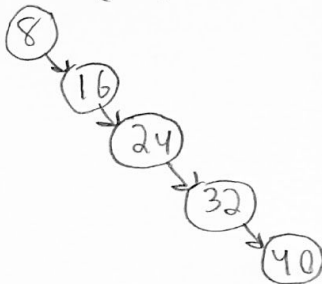
insert (24)



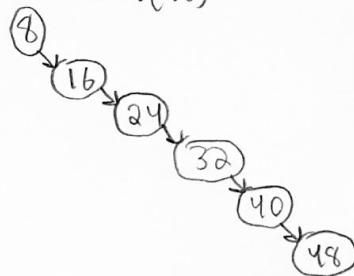
insert (32)



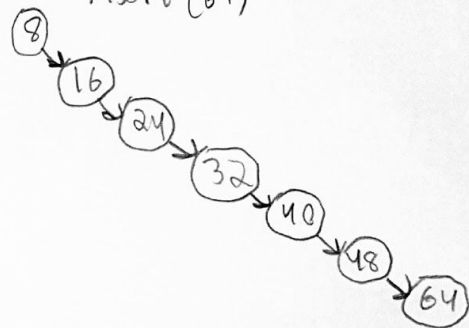
insert (40)



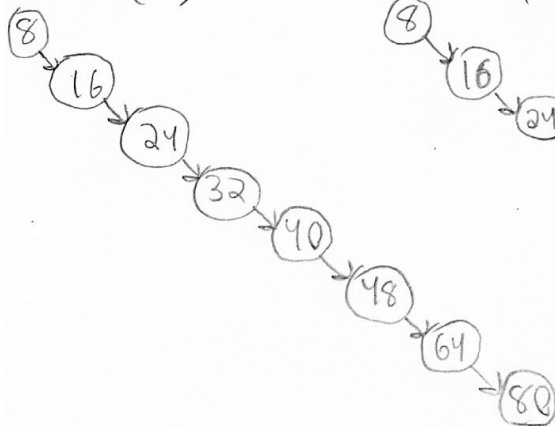
insert (48)



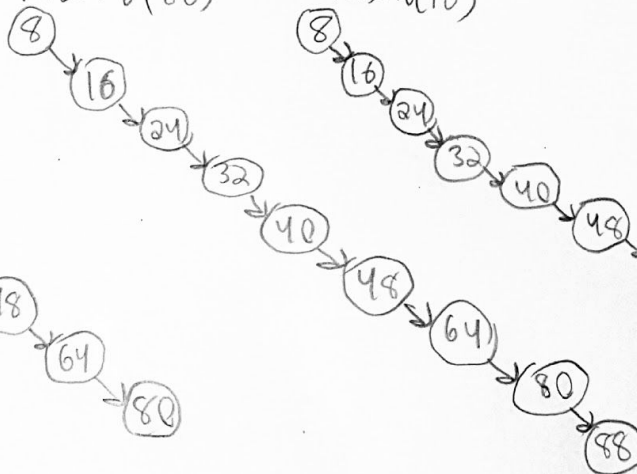
insert (64)



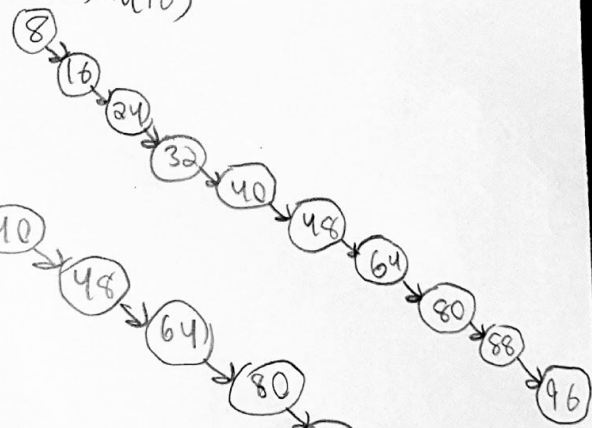
insert (80)



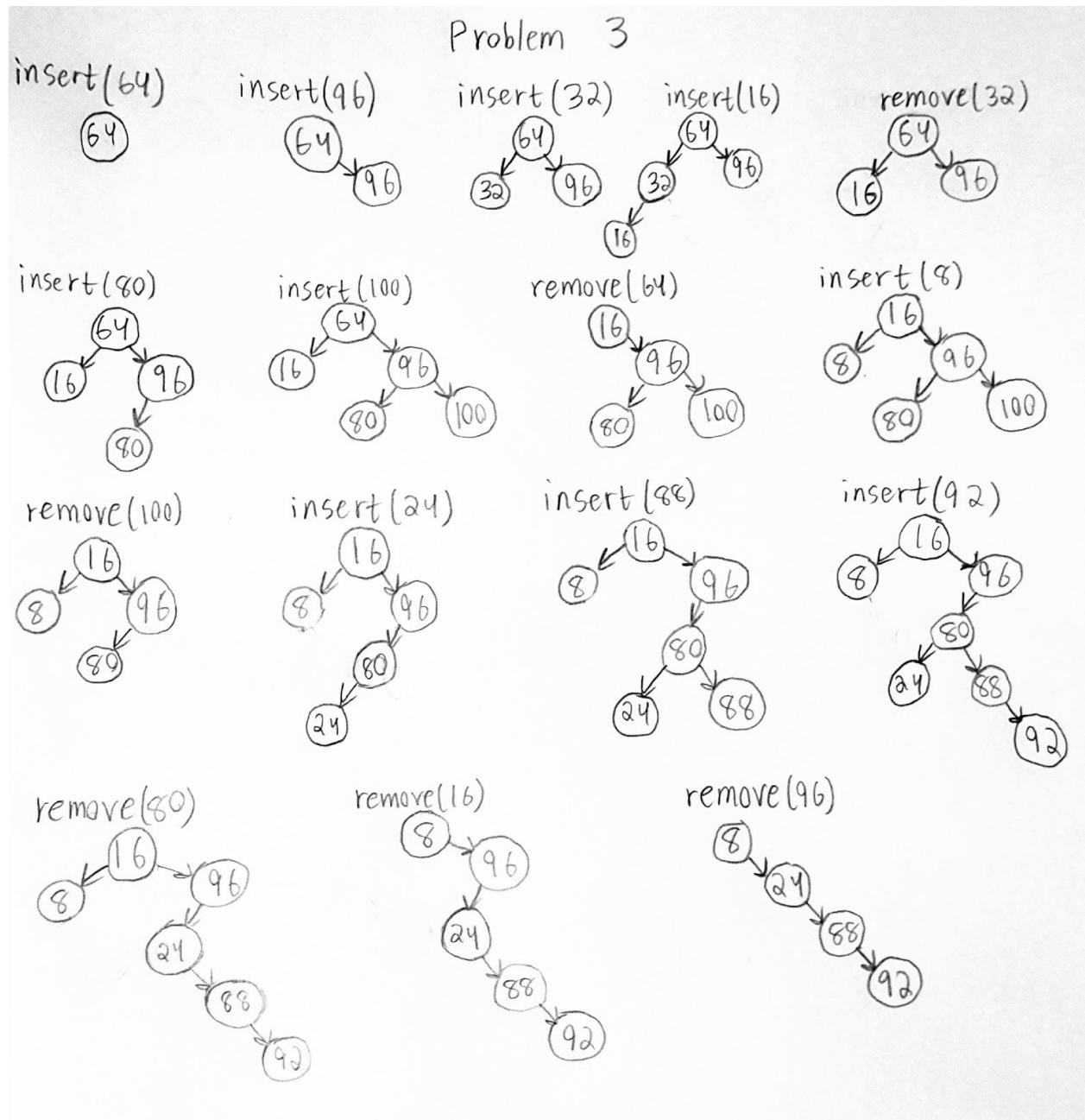
insert (88)



insert (96)



### Problem #3



### Submission and wrap-up

Once you've completed this exercise, simply submit a digital copy (JPEG, PNG, or PDF) of the trees you drew for the problems above on Canvas. Again, it's fine for you to take photos or scan trees you drew using pencil and paper.