

Assignment 3 - Due: October 29 at 6:45 PM
Please hand it in to me before class as a hard copy.
You can e-mail me a soft copy if you miss class.

Full Name: _____

1- We are performing the following operations on the ADTs below. Show the value returned by the peek and remove operations.

Add 20, 7, 5, 8. Remove (a). Add 10, 14. Peek (a). Add 9. Remove (b). Add 3, 11. Peek (b).

a) Min Priority Queue

Remove (a)= _____ Peek (a) = _____ Remove (b) = _____ Peek (b) = _____

b) Max Priority Queue

Remove (a)= _____ Peek (a) = _____ Remove (b) = _____ Peek (b) = _____

2 - Draw the **max** heap (in tree form) that results from the following values added to the heap in the given order. Show the steps.

1 3 5 2 7 4 8 6 9

3 - Starting from the heap represented by the given array, show the heap that results after performing 3 removes. Give both the **tree** and **array representations after each remove**.

1 3 2 5 9 7 4 6 8