CSCE 3110 Assignment 4
Due: 11/10, 11:59PM

1. (25 points) Build min-heap

   Show the result of inserting the follow values one at a time into the initially empty binary min-heap. (show the heap after each insert).

   42, 11, 28, 8, 13, 61, 18

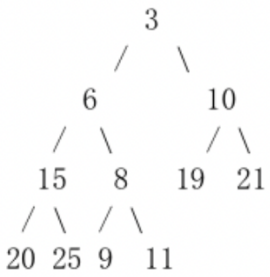
   (1) Use trees to illustrate each heap.

   (2) Show the final heap created in the previous question would be stored in an array.

2. (25 points) Repeat the process to build a max-heap with the following list. Show each step of the insertion.

   45, 20, 35, 15, 50, 10, 30

3. (25 points) Show the result after deleteMin on this binary heap. (show each step)



4. (25 points) For this 3-heap:
   a) show how it could be stored in an array
   b) give the formulas to find the left, middle, and right children from any parent
   c) give the formula to find the parent from any child