The quiz concerns binary trees.

1. How many leaves does a complete binary tree of height $h$ have, when:
   - $h = 1$? ________
   - $h = 2$? ________
   - any $h$? ________

2. What is the size (total number of nodes) of a complete binary tree of height $h$ when:
   - $h = 1$? ________
   - $h = 2$? ________
   - any $h$? ________

3. In the tree above: what is the size of $A$, $B$, $C$, when
   - $h = 2$? _______, _______, _______
   - $h = 3$? _______, _______, _______
   - any $h$? _______, _______, _______

   roughly, what fraction of the total is $A + B$ in this tree (any $h$).

4. What is the size of the heap above (a minimum heap) when:
   - $h = 1$? ________
   - $h = 2$? ________
   - any $h$? ________

5. What is the size of a maximum heap of height $h$ when:
   - $h = 1$? ________
   - $h = 2$? ________
   - any $h$? ________

6. In general for heaps of height $h$,
   - what is the minimum size? ________
   - what is the maximum size? ________