T/F:

1. The height of a Kd-tree is always $\Theta(\log n)$

2. Radixsort can have worse runtime than bubblesort on certain inputs

3. The worst case runtime for inserting into a skiplist is $\Theta(\log n)$.

4. Quickselect has expected runtime $\Theta(n)$, if a random pivot is used.

5. An AVL tree with 2^k nodes ($K \in \mathbb{N}$, $K > 0$), cannot be a 2-3 tree.

6. An AVL tree ~~cannot~~ with >1 nodes cannot be a 2-3 tree.

7. Inserting into an AVL tree can require $O(\log n)$ rotations.

8. A 2-D range search using a 2-D range tree takes $\Theta(\log^2 n)$ time.

9. Since Radixsort calls counting sort several times, Radixsort will take more time than Countingsort on the same input.