2-3 Tree Insertion

Q: Draw the 2-3 tree that results from inserting these items in order: 8, 2, 4, 5, 7, 9.

Q1: Draw the 2-3 tree that results from inserting these items in order: 8, 2, 4, 5, 7, 9.

Max-Height and Min-Height 2-3 Trees

Q: Give an insertion order for the keys 1, 2, 3, 4, 5, 6, 7 that results in a **max-height** 2-3 Tree.

Q2: What about for a **min-height** 2-3 Tree?

Q: What is the least number of keys we can stuff into a 2-3 Tree node? The greatest number of keys?

Q1: Give an insertion order for the keys 1, 2, 3, 4, 5, 6, 7 that results in a max-height 2-3 Tree.

Q2: What about for a min-height 2-3 Tree?
2-3 Tree Insertion Order

Give two insertion orders that both result in the following 2-3 tree.

Q1: Give two insertion orders that both result in the following 2-3 tree.

2-3 Tree Shapes

What is the minimum number of items that we can insert and increase the height?

What is the maximum number of items that we can insert and not increase the height?

Q1: What is the minimum number of items that we can insert and increase the height?

Q2: What is the maximum number of items that we can insert and not increase the height?