1. Show all legal B-trees of minimum degree 2 that represent \{1, 2, 3, 4, 5\}.

2. As a function of the minimum degree \( t \), what is the maximum number of keys that can be stored in a B-tree of height \( h \)?

3. Explain how to find the minimum key stored in a B-tree and how to find the predecessor of a given key stored in a B-tree.

4. Suppose that we were to implement \texttt{B-Tree-Search} to use binary search rather than linear search within each node. Show that this change makes the CPU time required \( O(\log n) \), independently of how \( t \) might be chosen as a function of \( n \).